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MONTEREY, CALIFORNIA

THESIS

NAFTA EFFECTS ON INCOME INEQUALITY BETWEEN 1998 AND 2006: A COMPARATIVE ANALYSIS

by

Celil Aybar

December 2013

Thesis Advisor: Robert E. Looney
Second Reader: Robert M. McNab

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Income inequalities constitute visible manifestations of differences in living standards within each country. High levels of income inequalities indicate a waste of human resources in the form of a large share of the population being without work or relegated to low-paid and low-skilled jobs. The term "income inequality," either measured by income or wages, is an important topic that has been continuously debated among academics and the media. Since the 1980s, most countries in the world experienced an increase in wage inequality and for some countries this trend continued during the 1990s. Mexico was no exception and went through a period of increasing inequality by the end of the 1980s. However, wage inequality in Mexico started to decline after 1994, the period after NAFTA was enacted. Although Mexico still seems to be experiencing inequality, the post-NAFTA period of 1998 to 2006 saw a decline in income inequality. Finding the reasons for the decline in income inequality during this period in Mexico is important because societies generally value a more democratic distribution of resources. Hence, the example of Mexico can be useful to other countries that are eager to reach lower inequality levels and overcome poverty.

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NAFTA EFFECTS ON INCOME INEQUALITY BETWEEN 1998 AND 2006: A COMPARATIVE ANALYSIS

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Submitted in partial fulfillment of the
requirements for the degree of

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ABSTRACT

Income inequalities constitute visible manifestations of differences in living standards within each country. High levels of income inequalities indicate a waste of human resources in the form of a large share of the population being without work or relegated to low-paid and low-skilled jobs. The term "income inequality," either measured by income or wages, is an important topic that has been continuously debated among academics and the media. Since the 1980s, most countries in the world experienced an increase in wage inequality and for some countries this trend continued during the 1990s. Mexico was no exception and went through a period of increasing inequality by the end of the 1980s. However, wage inequality in Mexico started to decline after 1994, the period after NAFTA was enacted.

Although Mexico still seems to be experiencing inequality, the post-NAFTA period of 1998 to 2006 saw a decline in income inequality. Finding the reasons for the decline in income inequality during this period in Mexico is important because societies generally value a more democratic distribution of resources. Hence, the example of Mexico can be useful to other countries that are eager to reach lower inequality levels and overcome poverty.

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LIST OF ACRONYMS AND ABBREVIATIONS

EU	EUROPEAN UNION
FDI	FOREIGN DIRECT INVESTMENT
GATT	GENERAL AGREEMENT ON TARIFFS AND TRADE
GDP	GROSS DOMESTIC PRODUCT
ILO	INTERNATIONAL LABOUR ORGANIZATION
IMF	INTERNATIONAL MONETARY FUND
INEGI	INSTITUTO NACIONAL DE ESTADISTICA, GEOGRAFIA E INFORMATICA
NAAEC	NORTH AMERICAN AGREEMENT ON ENVIRONMENTAL COOPERATION
NAALC	NORTH AMERICAN AGREEMENT ON LABOR COOPERATION
NAFTA	NORTH AMERICAN FREE TRADE AGREEMENT
OECD	ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT
PRI	INSTITUTIONAL REVOLUTIONARY PARTY
WTO	WORLD TRADE ORGANIZATION

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I. INTRODUCTION

Income inequalities constitute visible manifestations of differences in living standards within each country. High levels of income inequalities indicate a waste of human resources in the form of a large share of the population being without work or relegated to low-paying and low-skilled jobs.

Income inequality has been one of the major problems in Latin America, especially in Mexico. The country has long been characterized by significant economic inequality. In its economic history, Mexico welcomed free trade agreements and implemented reforms to improve its economy and welfare.

Since January 1994, the North American Free Trade Agreement (NAFTA) has had a major role in the bilateral economic relationship between Mexico and the United States. The two countries are closely tied in bilateral trade and investment, as well as in areas of mutual interest such as migration, security, environmental, and health issues.

In signing NAFTA, Mexico's goals were institutionalizing the economic reforms of the President Salinas, maintaining the country's social peace and getting approval for its non-democratic, authoritarian regime. The trade linkage with the United States and Canada, two developed industrial democracies, made Mexico the bridge country between the developed and developing worlds. The country assumed the role of an agent and interlocutor model for the nations of the south.[1]

The term "inequality," either measured by income or wages, is an important topic that has been continuously debated among academics and the media. During the 1980s, most countries in the world experienced an increase in wage inequality, and for some countries this trend continued during the 1990s. Mexico was no exception and went through a period of increasing inequality by the end of the 1980s. However, wage inequality in Mexico started to decline after 1994, the period after NAFTA was enacted.

[1] Peter H. Smith, "Strategic Options for Latin America," in *Latin America in the New International System,* ed. Joseph S. Tulchin and Ralph H. Espach (Boulder, CO: Lynne Rienner, 2001), 42.

Given that the economic system is a complex web of interconnected factors and events, it is difficult to isolate the specific effect of NAFTA on income inequality. What Mexico hoped for when it opened its economy and joined NAFTA was not merely a reduction in inequality among different groups of workers. Mexico also hoped to raise the standard of living for most citizens and to stop the flow of outward migration. This goal simply has not come to pass, especially in the tradable goods industries that are most impacted by trade. The gains and losses from trade have not been distributed evenly all the time in every country.

Inequality in Mexico is significant, as it is in much of Latin America (see Figure 1). This is a cause for concern because it undermines social stability and political cohesion. Furthermore, societies with highly unequal economies have been seen to reduce poverty and inequality less effectively and at slower rates than more equal societies. Some analysts have also pointed out that national economic growth is reduced by highly unequal income distributions in the long run, thus restricting the incomes of all.

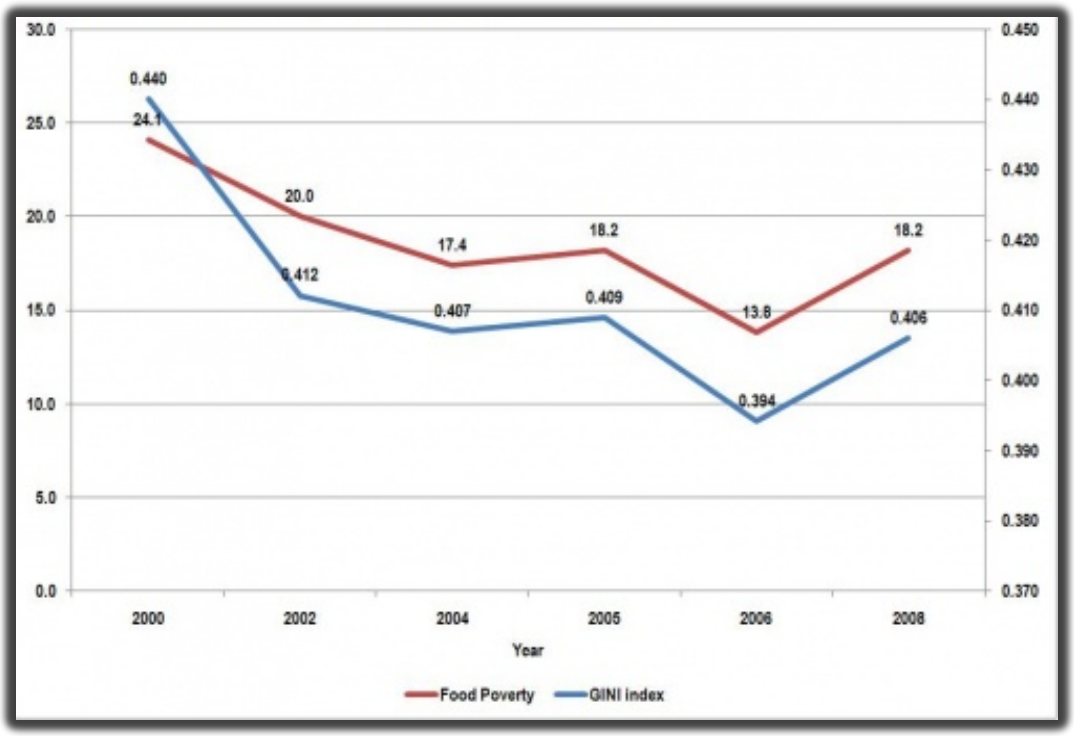

Figure 1. Economic Inequality in Mexico[2]

Although Mexico still seems to be experiencing income inequality, from 1998 to 2006 post-NAFTA Mexico witnessed a decline in that inequality. Finding the reasons for the decline in income inequality during this period in Mexico is important because societies generally value a more democratic distribution of resources. Hence, the example of Mexico can be useful to other countries that are aiming to lower their domestic inequality levels and recover from poverty.

A. PROBLEMS AND HYPOTHESIS

Income inequality is a common problem in most of the countries of the world; however, we see it mostly in Latin American countries at an extreme degree. Mexico, even with a growing economy, still suffers from income inequality. In this thesis which examines the period of 1998 to 2006, we hypothesize that NAFTA contributed to the decline in income inequality during that time period.

[2] CONEVAL, "Food Poverty Gap and Gini Index," July 2009, http://www.coneval.gob.mx.

In our analysis, we will use the Gini coefficient as the preferred measure of inequality to investigate the contribution of different income resources to the evolution of inequality in Mexico. In particular, we will mostly refer to wages in making the analysis. On the other hand, since economic inequality is usually measured by either current total income or current monetary income (which does not include non-monetary income and consumption of own production and excludes capital gains), we will mostly focus on monetary income estimates. In bringing the analysis, we will use the Expenditure Survey (ENIGH, for its Spanish acronym) for the statistics, which is nationally representative and which includes relevant variables such as income sources, expenditures and demographic characteristics.

In the way of finding an answer to the research question, the first part (Chapters I and II) of the thesis will include the definition of income inequality, its measures, causes, and its effects. The third chapter will deal with the nature of NAFTA. Our goal here is to provide background information on NAFTA before going deeper into the subject of income inequality. This thesis also examines different views over the benefits and disadvantages of NAFTA that have been argued by various scholars. Due to the argument's complexity, it will be seen that while some scholars such as Campos-Vásquez, Kose, Romalis, and Towe assert that the agreement has brought economic growth since its implementation, others, such as Lederman and Maloney, posit nothing has changed considerably in Mexico.

In Chapter IV we will examine the link between NAFTA and Mexico by explaining Mexico's motivations for entering NAFTA, the Peso Crisis, and problematic areas such as income gap and wages. In Chapter V, the reader will find a comparison of the methods used by some scholars, such as Robertson, Hufbauer, and Jensen, to identify the reasons for the decline in income inequality.

Finally, the basic findings taken from the Mexico case are presented in Chapter VI. Here, our aim is to find some useful points that can be applied to other countries of the world. In examining the effects of the post-NAFTA period on income inequality, we refer mainly to contemporary newspapers and magazines to follow the

recent developments in Mexico. It is hoped that we can learn much from the NAFTA case and the reforms of Mexico.

In the following section, we begin by laying out the initial causes of income inequality in Mexico and the factors that reduced its impact. By examining the existing literature in detail, we identify the contributing factors, such as social programs, job polarization, improvement in education levels, demand for low-skilled workers, maquiladoras factories, lack of job creation of high quality jobs, increased foreign direct investment (FDI) inflows and supply and demand factors.

B. LITERATURE REVIEW

As the main purpose of this study is to determine whether NAFTA decreased income inequality in Mexico between 1998 and 2006, it is necessary to know what NAFTA is, what it brought, how it is structured, as well as the meaning and measures of income inequality. Studies have been done regarding NAFTA's socio-economic influence on Mexico's trade activity in terms of determining whether the agreement can be regarded as a successful step towards economic reforms or a failed strategy. William Easterly and his colleagues in their article "NAFTA and Convergence in North America: High Expectations, Big Events, Little Time" support the positive effects of NAFTA on the Mexican economy mentioning the decreased income gap after 1995, though Mexico's lack of institutional reforms was partly an obstacle to this union.[3]

Talking about the impacts of NAFTA on income inequality, the authors Campos-Vásquez[4] and Gerardo Esquivel's studies conclude that in the post-NAFTA Mexico, income equality had been provided. In each study, they mention different factors leading to income equality. For instance, according to Campos-Vásquez cites the increase in college enrollment rates and decrease in demand for top-skilled jobs, whereas the reasons according to Esquivel are the application of new social programs, a growing flow of payments and education levels. Esquivel also states that there has been a dramatic decline

[3] William Easterly, Norbert Fiess, and Daniel Lederman, "NAFTA and Convergence in North America: High Expectations, Big Events, Little Time," *Economía* 4, no. 1 (2003): 1–53.

[4] Raymundo M. Campos-Vásquez, "Why Did Wage Inequality Decrease in Mexico after NAFTA?" Serie documentos de trabajo del Centro de Estudios Económicos 15 (2010) 1–49.

in income inequality since 1994. According to Esquivel, income inequality returned to its former level that existed before the unpleasant increase in inequality between 1984 and 1994.[5]

According to William A. Orme's book, *Understanding NAFTA: Mexico, Free Trade and the New North America,*[6] and Shoji Nishijima and Peter H. Smith's book, *Cooperation or Rivalry? Regional Integration in the Americas and the Pacific Rim,*[7] the main aim of NAFTA was to free up trade flows between North American countries. The agreement was as much a way to liberalize and protect foreign financing as it was to undo trade barriers. Accordingly, in an International Monetary Fund (IMF) Working Paper "How Has NAFTA Affected the Mexican Economy? Review and Evidence," the writers M. Ayhan Kose, Guy M. Meredith, and Christopher M. Towe argue post-NAFTA Mexico's economic progresses and growth performance, NAFTA's effect on trade flows in Mexico and upcoming challenges. The study cites practical evidence of NAFTA's effect in the country and presents some facts about how it affected trade and financial flows in the region.

Some other studies based on sectorial data series indicate a more significant power of NAFTA on trade flows. For instance John Romalis's study regarding the influence of tariff preference offered by the U.S. to the NAFTA partners on a range of industries between 1980 and 2000 indicates that Mexico's special behavior towards NAFTA triggered the increase in U.S. imports from Mexico up to 50% after 1993. The author also states that between the NAFTA partners, Mexico has been given the most benefit from NAFTA regarding its exports of commodities.[8] In a similar study, Laurie-Ann Agama and Christine A. McDaniel refer to the positive effect of NAFTA on the growing trade flows in the region. They emphasize the change in U.S. tariff preference on

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[5] Gerardo Esquivel, "The Dynamics of Income Inequality in Mexico since NAFTA," *Serie documentos de trabajo del Centro de Estudios Económicos* 9, 2010, 155–188.

[6] William A. Orme, *Understanding NAFTA: Mexico, Free Trade and the New North America* (Austin: University of Texas Press, 1996), 126.

[7] Shoji Nishijima and Peter H. Smith (eds.), *Cooperation or Rivalry? Regional Integration in the Americas and the Pacific Rim* (Boulder, CO: Westview Press, 1996), 36.

[8] John Romalis, "NAFTA's and CUSFTA's Impact on North American Trade," *University of Chicago Working Paper*, 2002, 1–50.

Mexico with the data of the period 1983–2001. According to their evaluation, a 1% increase in tariff preference brought about 4% growth in exports from Mexico to the U.S. and an almost 6% increase in U.S. exports to Mexico between 1993 and 2001.[9]

In the article "Lessons from NAFTA for Latin America and the Caribbean Countries: A Summary of Research Findings," the writers Daniel Lederman, William F. Maloney, and Luis Serven emphasize NAFTA's benefits to the Mexican economy, but mention that Mexico still needs to apply a wide range of reforms to catch up to its superior partners in terms of income level. One of the chapters on Mexico is named "Innovation in Mexico: NAFTA Is Not Enough." In this chapter, they assess modernization in Mexico, its consequences and effects of trade and FDI on this progress.[10]

On the other hand, scholars Westermann, Tornell and Martinez relate the economic growth in Mexico with some other developing market economies that initiated trade and financial flows in the early 1980s. From their viewpoint, though NAFTA has been beneficial and favorable in terms of exports and foreign direct investment flows, Mexico potentially could have developed more if there had been more persistent structural reforms.[11]

According to the 2002 Organisation for Economic Co-operation and Development's (OECD) report, intra-firm trade, which means cross-border trade between multinational companies and their associates, increased with NAFTA in the region. Most of these associates are maquiladora firms. OECD reports that between 1992 and 1999 there was a more than 3% increase in intra-firm exports from Mexico to the United States

[9] Laurie-Ann Agama and Christine A. McDaniel, "The NAFTA Preference and U.S.-Mexico Trade," *Office of Economics Working Paper*, 2002, 1–28.

[10] Daniel Lederman, William F. Maloney, and Luis Serven, "Lessons from NAFTA for Latin America and the Caribbean Countries: A Summary of Research Findings," *The World Bank Publications*, 2003, 1–376.

[11] Aaron Tornell, Frank Westermann, and Lorenza Martínez, "Liberalization, Growth, and Financial Crises: Lessons From Mexico and the Developing World," *Brookings Papers on Economic Activity* 2 (2003): 1–112.

and in 1999 this trade constituted more than two-thirds of total exports.[12] The authors Fullerton, Clark and Burdorf's studies also support the OECD report. According to their findings, in the post-NAFTA period there was a significant growth in intra-industry trade flow between Mexico and the United States for the manufacturing industries.[13]

For some scholars, Mexico's growth performance has been better in the post-NAFTA period. Kose, Meredith and Towe's study based on the gross domestic product (GDP) growth data for the period 1996–2002 indicates that the Mexican economy, compared with other developing market economies, has performed well after the inception of NAFTA and especially after the 1995 crisis. Furthermore, they state that Mexico has exported goods to the United States and Canada three times more in terms of dollars from 1993 to 2002, and contrary to the slowing growth of trade since 2000, Mexico's trade with NAFTA partners reached about 40% of its GDP in 2002.[14]

According to Arora and Vamvakidis, Mexico's domestic economy has coordinately increased with its NAFTA partners' growth rate and relative income. So, the authors state that half of the increase in Mexico's growth after 1995 was due to the growth performance of its trading partners.[15]

According to Campos-Vazquez, Esquivel and Lustig, the period between 1994 and 2010 can be divided into two parts: a period of declining inequality (1994–2006) and a period in which the decline in inequality lost its velocity (2006–2010). The authors state that one of the most important factors in reducing the inequality between 1994 and 2006 has been the evolution of labor income equality. They further explain the reason for decline in equality during this period by stating that the changes in the distribution of hourly earnings, which have reduced inequality, must have been large enough to

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[12] OECD, "Intra-industry and Intra-firm Trade and the Internationalization of Production," *OECD Economic Outlook*, 2002, 159–170.

[13] Don P. Clark, Thomas M. Fullerton, Jr., and Duane Burdorf, "Intra-industry trade between The United States and México: 1993–1998," *EstudiosEconómicos, El Colegio de México, Centro de Estudios Económicos* 16, no. 2, 2001, 167–183.

[14] Ayhan Kose, Guy M. Meredith, and Christopher M. Towe, "How Has NAFTA Affected the Mexican Economy? Review and Evidence," (IMF Working Paper, 2004), 1–48.

[15] Vivek Arora and Athanasios Vamvakidis, "How Much Do Trading Partners Matter for Economic Growth?" (IMF Working Paper, 2004), 1–20.

compensate for the inequality-increasing effect of the changes in the distribution of hours worked. Their analysis also shows that average wages for higher-paid workers declined and wages for workers with lower levels of education or less experience increased between 1994 and 2006. The period 2006–2010 witnessed a small increase in inequality due to a decrease in wages at the bottom.[16]

Robertson, on the other side, posits that there has been an important expansion of assembly-line activities in Mexico (maquiladoras), which has increased demand for less-skilled workers and thus decreased the income inequality in Mexico. He states that traditional trade channels drive the fall in wage inequality. He further argues that trade caused a reorientation in Mexican manufacturing benefiting less skilled workers.[17]

Gordon Hanson, in his article "What Has Happened to Wages in Mexico Since NAFTA? Implications for Hemispheric Free Trade," examines how NAFTA has altered Mexico's wage structure. He argues that there is a strong positive correlation between wage growth in Mexico and wage growth in the United States.[18]

In his article "Why Did Wage Inequality Decrease in Mexico after NAFTA," Campos-Vazquez examines the forces behind the post-NAFTA decrease in wage inequality. He argues that the decline in wage inequality was pushed by a decline in the returns to education and potential experience. According to him, primarily supply and demand forces drive changes in the wage structure in Mexico for the post-NAFTA period. The reasons for the decline, he argues, are the lack of creating high quality jobs and the fall in the returns to schooling.[19]

Gerardo Esquivel and Guillermo Cruces state that the reduction in wage inequality has stemmed from the trade liberalization and a structural change in Mexico's workforce in terms of education and experience. According to them, the reduction seems

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[16] Raymundo M. Campos-Vazquez, Gerardo Esquivel, and Nora Lustig, "The Rise and Fall of Income Inequality in Mexico: 1989–2010," 2012, 20.

[17] Raymond Robertson, "Trade and Wages: Two Puzzles from Mexico," *The World Economy* 30, no. 9 (2007): 1378–1398.

[18] Gordon Hanson, "What Has Happened to Wages in Mexico since NAFTA? Implications for Hemispheric Free Trade," *NBER Working Paper Series*, 2003, 1–43, http://www.nber.org/papers/w9563.

[19] Campos-Vázquez, "Why Did Wage Inequality Decrease in Mexico After NAFTA," 1–49.

to be the result of social programs and improvement in education levels in Mexico. Esquivel ends his article with the idea that the recent reduction of inequality in Mexico is due to the interaction of both the market and the State.[20]

On the other hand, according to their analysis, Nathan M. Jensen and Guillermo Rosas argue that they find the inflows of FDI into Mexican states are associated with a leveling of incomes at the state level. They focus on the liberalization of capital inflows into Mexico in the mid-1990s to test the impact of FDI on income inequality.[21]

Raymond Robertson states that the changes in inequality can be explained by either the change in the supply of skill or the idea of vertical integration. He also mentions that migration plays an important role in national wage levels, and that rising U.S. border enforcement may have worked to mitigate the otherwise positive effects of trade liberalization by pushing down Mexican wages.[22]

In their book *NAFTA Revisited*, Gary C. Hufbauer and Jeffrey J. Schott state that one reason for the high level of poverty is inequality, and they give suggestions like speeding the economic growth and reducing the education gap as the cures for diminishing poverty and inequality, which we will mention about in Chapter V.[23]

In conclusion, NAFTA brought many opportunities for Mexico's economy to flourish with the help of job creation and globalization between 1998 and 2006. During this period, the FDI inflows, education levels of the workers, and maquiladora firms played an important part in decreasing the income inequality in the country. There is still some progress to be done to achieve a better equality in Mexico; however, if any of these opportunities that have been given to Mexico can also be allowed to emerge in other countries, they will surely pass through the same economic progress that Mexico's economy has witnessed.

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[20] Esquivel, "The Dynamics of Income Inequality in Mexico since NAFTA," 155–188.

[21] Nathan M. Jensen and Guillermo Rosas, "Foreign Direct Investment and Income Inequality in Mexico, 1990–2000," *International Organization* 61, no. 3 (2007): 467–487.

[22] Robertson, "Trade and Wages: Two Puzzles from Mexico," 1378–1398.

[23] Gary C. Hufbauer and Jeffrey J. Schott, *NAFTA Revisited. Achievements and Challenges* (Washington, DC: Institute for International Economics, 2005), 1–544.

II. INCOME INEQUALITY

A. DEFINITION

Income inequality is the difference between individuals or populations in terms of the distribution of their wealth, assets, or income. The term not only refers to people within a country, but can also show the degree of inequality among the populations of different countries.

B. MEASURES OF INCOME INEQUALITY

1. Gini Coefficient

The Gini coefficient, which is by far the most common measure of income equality, is easy to understand and easy to calculate. It is represented as the Lorenz curve, which plots the cumulative percentage of the population against the cumulative percentage of the income (see Figure 2).

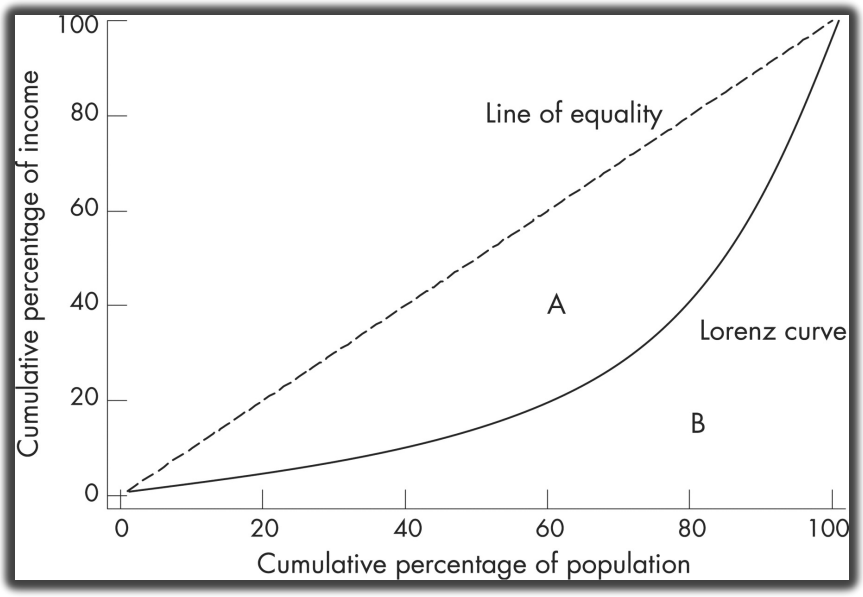

Figure 2. Lorenz Curve[24]

[24] edEcon, "Poverty and Inequality, Lorenz Curve," http://edecon.wordpress.com/2011/06/19/poverty-and-inequality/.

The 45-degree line of equality shows perfect equality in a country meaning that the "poorest" 20% of the population would earn 20% of the total income, and the "poorest" 50% of the population would earn 50% of the total income. On the other side, the Lorenz curve represents an uneven distribution of income. As the inequality increases in a country, the Lorenz curve deviates from the line of equality. Here, the "poorest" 20% of the population may earn 5% of the total income, and the "poorest" 60% of the population may earn 20% of the total income. The areas named "A" and "B" are used to calculate the Gini coefficient. The Gini coefficient is equal to the ratio of the area between the Lorenz curve and the line of equality divided by the area under the line of equality. In sum, the equation is as follows:[25]

$$\text{Gini Coefficient} = \frac{A}{A+B}$$

The Gini coefficient represents a value between 0 and 1. The value "0" represents a perfectly equal society in which the income is equally shared by all members; in this situation the Lorenz curve follows the 45° line of equality. The Gini coefficient "1" indicates a perfectly unequal society where all the total income is possessed by only one individual. The figure explains this equation: the higher the inequality becomes, the value comes closer to the 1, and with the same logic, when the inequality decreases in a country, the value becomes close to the 0.[26]

Here are a few of the most common examples of calculating the Gini coefficient:

Example 1. As Jorge A. Charles-Coll mentions, one example is a measurement that "estimates for a population homogenous on the income values and that are indexed in an increasing ($y_i \leq y_{i+1}$) order"[27] simplified in the following formula:

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[25] Fernando G. De Maio, "Income Inequality Measures," *Journal of Epidemiology and Community Health* 61, no. 10, 2007, 849–852.

[26] Jorge A. Charles-Coll, "Understanding Income Inequality: Concept, Causes and Measurement," *International Journal of Economics and Management Sciences* 1, no.3, 2011, 24, http://www.managementjournals.org/ijems/3/IJEMS-11–1303.pdf.

[27] Ibid., 25.

$$\text{Gini} = \frac{2\sum_{i=1}^{n} iy_i}{n\sum_{i=1}^{n} y_i} - \frac{n+1}{n}$$

Example 2. The second possible way of calculating the Gini coefficient is done by consulting the Lorenz curve. If we refer to the figure again, since the Gini coefficient is measured as the ratio of the areas on the Lorenz curve graph, we see that A+B equals 0.5.[28] Thus, the new equation will be:

$$\text{Gini} = \frac{A}{(0.5)} = 2A = 1 - 2B$$

If we formulate this equation as an integration formula considering the Lorenz curve represented by a function *Y=L(X)*, the formula will be:

$$\text{Gini} = 1 - 2\int_0^1 L(X)\,dX$$

Example 3. In the example of another possible formula, it is possible to see how the Gini coefficient is a measure of distribution divided by twice the value of the mean income.

$$\text{Gini} = \frac{\frac{1}{n^2}\sum_{i=1}^{n}\sum_{j=1}^{n}\left|y_i - y_j\right|}{2\mu}$$

Example 4. The final calculation is Angus Deaton's more general and abridged formula:

$$\text{Gini} = \frac{N+1}{N-1} - \frac{2}{N(N-1)\mu}\left(\sum_{i=1}^{n} P_i Y_i\right)$$

[28] Ibid.

Charles-Coll explains this equation briefly: "Where P_i is the income rank P of person i, with an income of Y, in a way that the poorest individuals receive a rank of N and the richest of 1."[29]

The methods for calculating the Gini coefficient change from one situation to another. For instance, if we do not know the entire Lorenz curve and been given only values at certain intervals, then we use different methods to approximate the Gini coefficient that help us interpolate the missing values of the Lorenz curve.

The most important feature of the Gini coefficient is that it fulfills the four main principles that any inequality metric should meet in order to be regarded as an applicable measure. These principles are briefly as follows:[30]

- *The transfer principle*, where a transfer from a poor individual to a richer one should reflect an increase in the measure of inequality regardless of the size of the transfer or the relative position of the poor regarding the rich.
- *The scale independence*, which notes that if the general income level increases by a fixed amount, then the ratio of inequality should not change at all.
- *The anonymity principle*, which does not consider the identity of the income recipients in the inequality measure.
- *The population independence*, which argues that the size of the population should not matter in measuring the inequality ratio.[31]

2. Coefficient of Variation

The coefficient of variation is also known as unitized risk or the variation coefficient obtained by dividing the square root of the variance by the mean level of income.[32] In this formula, more equal income distributions will have smaller standard deviations, and as a result more equal societies will have a small coefficient of variation (denoted by CoV in Figure 3).

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[29] Charles-Coll, "Understanding Income Inequality," 25.

[30] Ibid., 26.

[31] Charles-Coll. "Understanding Income Inequality," 26.

[32] Ibid., 22.

$$C = \frac{\sqrt{V}}{\mu}$$

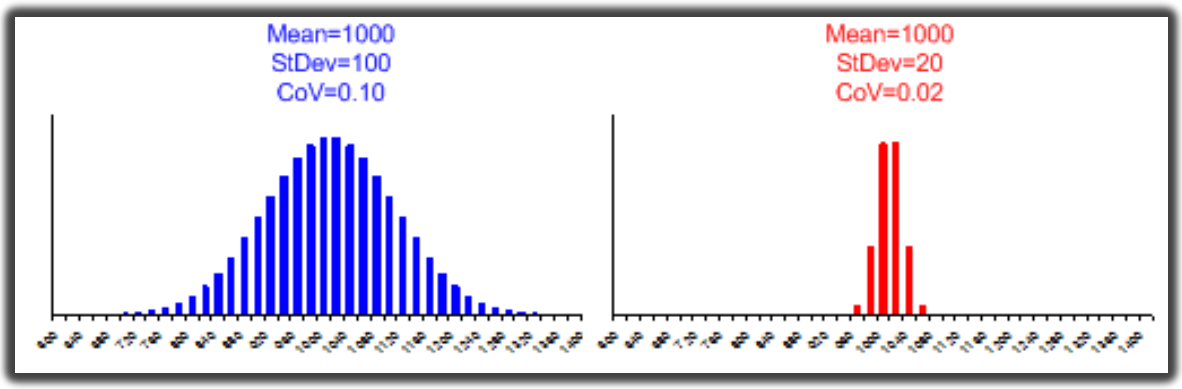

Figure 3. Coefficient of Variation[33]

In Figure 3, both distributions have the same mean, 1, but the standard deviation on the right is much smaller compared to the one on the left, resulting in a lower coefficient of variation.

The coefficient of variation is responsive to income changes at any level and in any direction, which makes this formula a plausible choice for measuring income inequality. The disadvantage of this formula is that it regards only the mean income, while other measures, such as Gini coefficient, consider the differences between all types of individuals and not only from the mean. The coefficient of variation formula also does not have an upper bound, unlike the Gini coefficient, which makes understanding and comparison more difficult.[34]

3. The Theil Index

The Theil index was proposed by an econometrician, Henri Theil. It is related to the entropy measures from information theory. Entropy, in this context, can be considered as a property of a group of income recipients who are unable to be

[33] Brighton Webs, Ltd., "Coefficient of Variation," http://www.brighton-webs.co.uk/statistics/coeff_of_variation.aspx

[34] De Maio, "Income Inequality Measures," 849–852.

differentiated from each other by their assets. In this theory, higher entropy means higher equality in income distribution, and conversely, higher inequality is regarded as low entropy or higher redundancy. The Theil index is between 0 and 1 as is the Gini coefficient, but the Theil index shows inequality in an opposite scale reference. The value "1" symbolizes total equality (maximum entropy), and a value of "0" signifies maximum inequality (maximum redundancy).[35] The Theil index can be explained as the total of the inequality between the subgroups. This is called the between-group inequality. On the other hand, the other part of inequality that is not clarified by this sum of all subgroup inequality is described as the inequality within groups.[36]

The Theil index can be formulated as follows:

$$T_T = T_{\alpha=1} = \frac{1}{N}\sum_{i=1}^{N}\left(\frac{y_i}{\bar{y}}.\ln\frac{y_i}{\bar{y}}\right)$$

y_i = Income of individual i

4. Atkinson Index

In his book, *The Economics of Inequality*, Anthony B. Atkinson argues that inequality measures should also consider social judgments. Therefore, he considers the sensitivity of the society putting forward the sensitivity parameter (ε) that ranges from 0 to infinity. As the value of ε increases, the Atkinson index becomes more sensitive to inequalities at the bottom of the income distribution. The Atkinson value ranges from 0 to 1, where 0 represents the equal distribution of income. If we take an example from the Atkinson index, the value 0.30 proposes that we could acquire the same degree of wellbeing with only 1–0.30 = 70 % income.[37]

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[35] Charles-Coll, "Understanding Income Inequality," 23.

[36] Matthew Hammill, "Income Inequality in Central America, Dominican Republic and Mexico: Assessing the Importance of Individual and Household Characteristics," UN Social Development Unit, 2005, 45. http://www.eclac.org/publicaciones/xml/6/23726/L701.pdf.

[37] De Maio, "Income Inequality Measures," 3.

C. CAUSES OF INEQUALITY

In our daily life, it is easy to see the causes of inequality arising from social factors to demographic issues or political decisions. The causes are usually linked to each other, and a single cause does not seem to explain the whole picture and does not constitute the only reason.

In his article "Distribution of Income," Frank Levy puts forward four main causes of income inequality in a society: family structure, trade and technology, expanded markets, and immigration.[38] On the other side, the New Economics Foundation examines the reasons for income gap and outlines five main causes: initial conditions, channels of influence in early life, external influences, the national economic system, and the political system and tax.[39]

1. Family Structure

Levy puts forward "family structure" as a contributing factor to income inequality mentioning that the family structure has shifted from the one-earner, two-parent famıly system, but it has changed into either single-parent families with low-income or two-parent, two-earner families with higher-income. The number of workers in these families, which are in the top quantile, has increased compared to families in the bottom quantile. Many reasons can be given for this argument. For instance, with the spread of education among women in many countries, families in the top quantile have begun to increase in size from one to two workers, and this has increased the income gap between them and the ones in the bottom quantile. By the same logic, the families who provide better education for their children to be compatible with the prerequisites of new job opportunities acquire more income compared to the ones who cannot provide better education for their children.

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[38] Frank Levy, "Distribution of Income," *The Concise Encyclopedia of Economics*, 1993, accessed August 4, 2013, http://www.econlib.org/library/Enc/DistributionofIncome.html.

[39] Daiana Beitler et al., "Why the Rich Are Getting Richer," 2011, accessed August 7, 2013, http://www.neweconomics.org/publications/entry/why-the-rich-are-getting-richer.

2. Technology

In the twentieth century, the world witnessed many developments in technology. Today, it is even advancing more rapidly in our daily lives. With these advancements, the demand for labor has shifted from low-skilled to high-skilled labor. Due to this demand, the education needed for this high-tech labor has become widespread in the business sector. After having built factories in parallel with technology, the trade sector with new emerging job opportunities has only benefited skilled workers. At the same time, less-educated people are today the ones who are having difficulty in finding a job. Thus, developing trade and technology have caused an income gap between less-skilled and high-skilled workers due to the demand of technology for high-skilled and educated workers.[40]

3. Immigration

Immigration, a current global problem, has increased the number of people with low skills in certain societies and caused more people to struggle for jobs, which has contributed to inequality within these countries.[41] In a country where there is a huge flow of immigration from other countries, there becomes an increasing demand for jobs due to the growing size of the population. The immigration flows mostly bring a group of low-skilled workers, which results in a decrease in wages for low-skilled labor. This happens because now the employer has more options in choosing potential employees. There will always be someone who is going to accept a lower wage. The decrease in wages surely widens the gap between the skilled and non-skilled workers, which directly contributes to income inequality in a country.

4. Globalization

In her article, Anne Rathbone Bradley mentions the IMF report stating that globalization has increased income inequality where globalized markets eliminated the borders of small local markets and brought new players to the arena:

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[40] Levy, "Distribution of Income."

[41] Ibid.

> Real per capita incomes have risen across virtually all income and regional groups for even the poorest quintiles. Not only are the poor no worse off (with very few exceptions of post-crisis economies), in most cases the poor are significantly better off, during the most recent phase of globalization. Over the past two decades, income growth has been positive for all quintiles in virtually all regions and all income groups during the recent period of globalization. At the same time, however, income inequality has increased mainly in middle- and high-income countries and less so in low income countries.[42]

5. Initial Conditions

People are born into different opportunities right from the start. Someone who inherited a certain amount of wealth or kind of assets starts life one step ahead. If your father is wealthy, you will probably have your own business and increase your capital later on. This situation, which gives one a headstart compared to low-income people, increases the income inequality in a society. There are also documents such as "The London School of Economics and Political Science Report" showing that in some places women earn less compared to men and that people's earnings change according to their race. According to the 2004 population survey by the U.S. Census Bureau, the amount that full-time female workers earned on average was $31,223 USD, and the males' was $40,798 USD. The same report mentions that "the average earnings for the white (non-Hispanic) population was $48,977 USD, while the average for the Hispanic population was of $34,241 USD and for the Afro-American population of $30,134 USD, a difference of over 30% for Hispanics and of 38.5% for Afro-Americans."[43]

6. Early Life Opportunities

The future of a human being is mostly shaped by the early experiences and opportunities he or she is given in childhood. For instance, the child who is born into a wealthy family and receives a better education becomes more apt to get a job and better earnings in the future. Taking factor of opportunity into consideration, bottom quantile

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[42] Anne Rathbone Bradley, "Why Does Income Inequality Exist?" Institute for Faith, Work & Economics 7, http://tifwe.org/research/income-inequality.

[43] Charles-Coll, "Understanding Income Inequality," 19.

families are at a disadvantage from the start, which is likely to increase the income inequality in a society.

D. EFFECTS OF INEQUALITY

Inequality has been a major problem in the world for not only the countries described as "poor," but also for the affluent ones. On a daily basis, it is fairly possible to come across the social and economic effects of inequality. From an observational perspective, one can infer that most of the problems people suffer around the world usually stem from the uneven distribution of wealth.

In their book *The Spirit Level*, Richard Wilkinson and Kate Pickett conclude with a list of the most common outcomes of inequality in a society: "level of trust, mental illness (including drug and alcohol addiction), life expectancy and infant mortality, obesity, children's educational performance, teenage births, homicides, imprisonment rates, and social mobility."[44] According to their research based on data collected from many different countries about the relation between health and social problems and inequality, they concluded that health and social problems tend to occur more in countries with greater income inequalities. Furthermore, according to the United Nations Children's Fund's index, which includes forty different indicators related to children's wellbeing, it is found that the wellbeing of children is worse in the countries having significant economic inequality.[45] Wilkinson and Pickett also argue that health and social problems are not related to the national income per person in a country, because if there are so many rich people with high amount of wealth in a country, this would surely increase the national per capita income without any contribution to the welfare of the poor.[46] In short, my friend's increasing wealth does not change my social or economic status.

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[44] Richard G. Wilkinson and Kate Pickett, *The Spirit Level: Why Greater Equality Makes Societies Stronger* (New York: Bloomsbury Press, 2009), 19.

[45] Wilkinson and Pickett, *The Spirit Level,* 23.

[46] Ibid., 21.

1. Social Relations

One of the unfavorable effects of inequality is social corrosion in a country. One aspect of which can be the feeling of being less equal compared to everyone around you. This perception may change your emotions or thoughts about them, and you may begin to create a world of your own. The economic inequality in a society—if considered in a logical way—opens and widens gaps between people and prevents social integration and relations.

Level of trust, one of the basic components of social relations, contributes to the pleasure people take from life and increases the quality of everyday life. The European and World Values Survey, which is a study on analyzing the degree of trust between people in different countries, asked people in each country whether they agreed with the statement: 'Most people can be trusted.' Using this data, Wilkinson and Kate compared the percentage of people who agreed with the statement and the amount of income inequality in the different countries. The result was not surprising; the percentage of people who did not agree with the statement and who did not seem to trust the society is high in the countries with high income inequality (see Figure 4). With less equality, people tend to become less familiar with each other, and there is less mutuality in everyday relations.

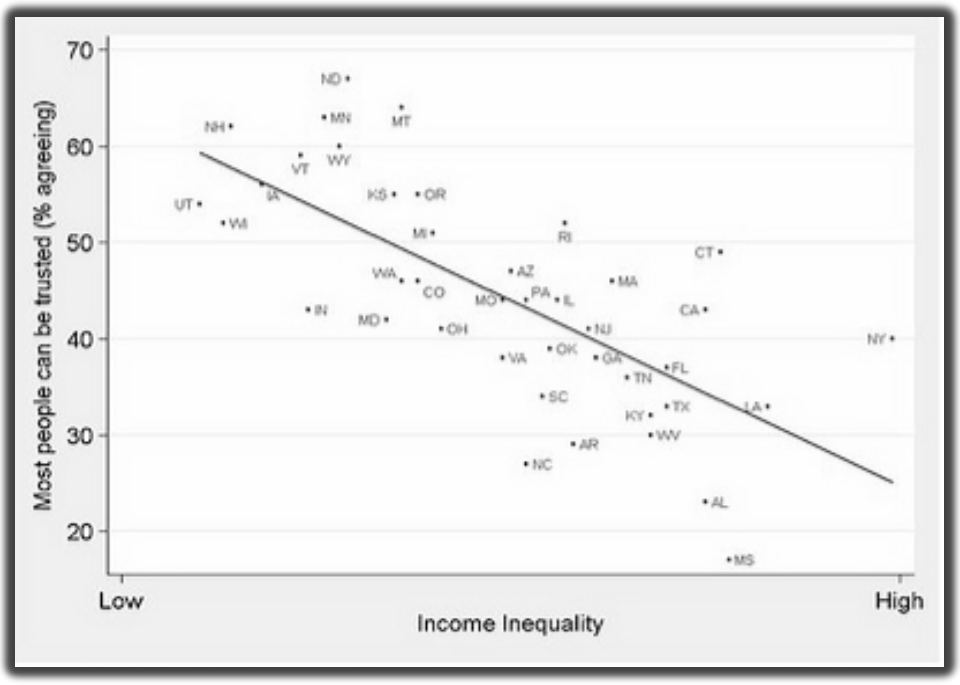

Figure 4. Trust and Income Inequality[47]

Eric Uslaner, the author of *The Moral Foundations of Trust*, compared the Gini index of inequality in the United States, including the years between 1960 and 1998, with the level of trust . According to his study, with the increase of income inequality in the 1990s, the trust level among the American people declined. This correspondence is seen most often in the parts of the world where hunger and poverty ruin the ethical tenets of human beings and causing unfavorable events, which gives way to social disorder such as robberies, suicides, and homicides (see Figure 5).

[47] Wilkinson and Pickett, *The Spirit Level*, 53.

Figure 5. Trust and Gini Index of Inequality[48]

2. Mental Illness and Drugs

Today, wealth is accepted as one of the major requirements to fulfill people's needs and to bring happiness. If someone cannot get the income to sustain his or her family's life, he or she begins to have depression due to the limits and burdens of life. If one cannot reach a desired standard of living, life may seem evil to him or her.

The World Health Organization has made surveys in different countries analyzing the percent of the population diagnosed with mental illness in the last twelve months. If we compare this data with these countries' income inequality ratios, we see that with the increase in income inequality, the percent of the population diagnosed with mental illness increases (see Figure 6).[49]

[48] Eric Uslaner, *The Moral Foundations of Trust* (New York: Cambridge, 2002), 187.

[49] Wilkinson and Pickett, *The Spirit Level*, 66.

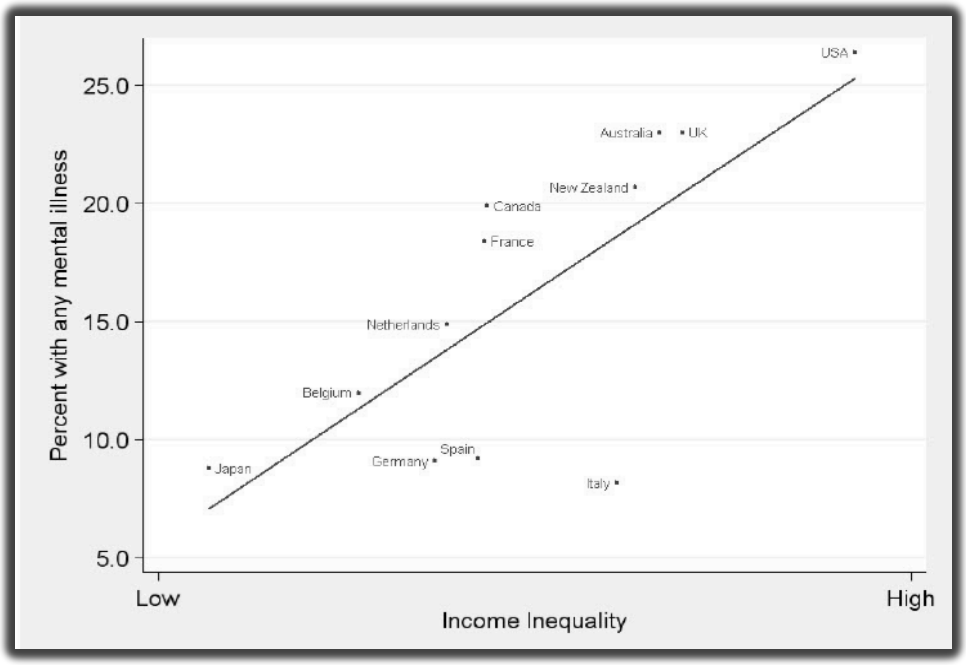

Figure 6. Mental Illness and Income Inequality[50]

According to the data Wilkinson and Pickett gleaned from the United Nations Office on Drugs and Crime on the use of different drugs from heroin to ecstasy, amphetamines, and cocaine, it is clear that drug use is also more common in countries that have high rates of income inequality (see Figure 7). One of the reasons for this drug abuse can be attributed to the mental emotions of despair the people with less money feel in a society.[51]

[50] Wilkinson and Pickett, *The Spirit Level*, 67.

[51] Ibid., 70.

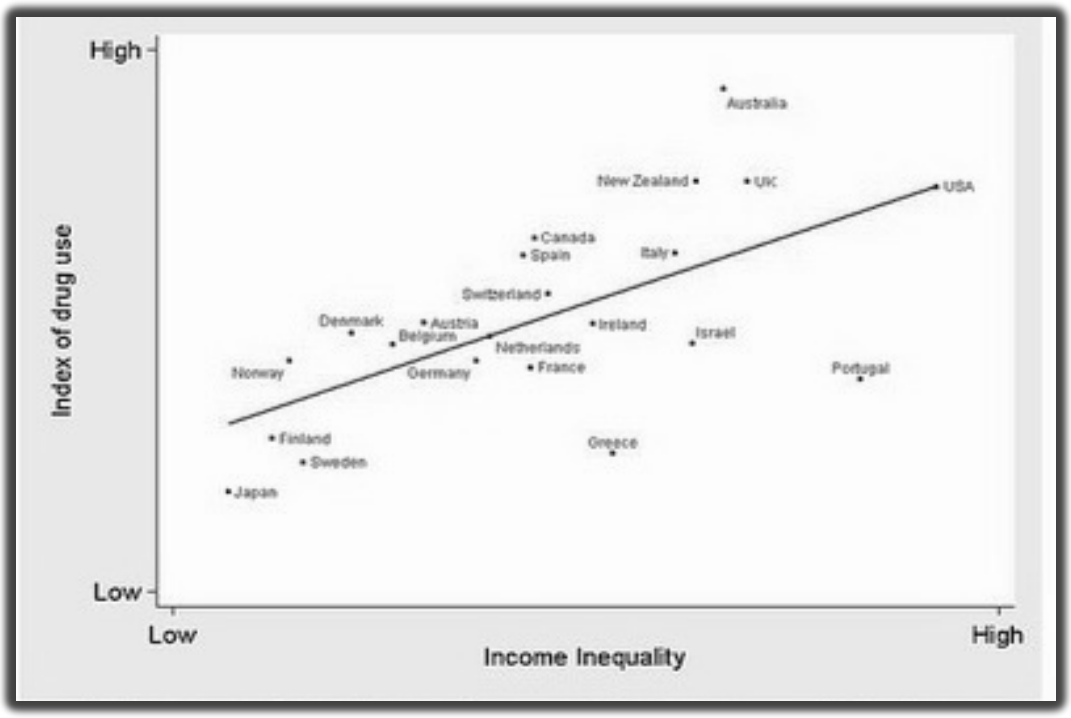

Figure 7. Drug Use and Income Inequality[52]

3. Life Expectancy and Infant Mortality

Wilkinson and Pickett's research shows that life expectancy is not related to the amount of money spent on health care per person in rich countries. Rather it is correlated with how equally the wealth is distributed in a country. The authors came up with the result that in an environment where income is distributed unevenly, there is an increase in the occurrence of "lower life expectancy, higher rates of infant mortality, shorter height, poor self-reported health, low birth weight, AIDS, and depression" (see Figure 8).[53]

[52] Wilkinson and Pickett, *The Spirit Level*, 71.

[53] Ibid., 81.

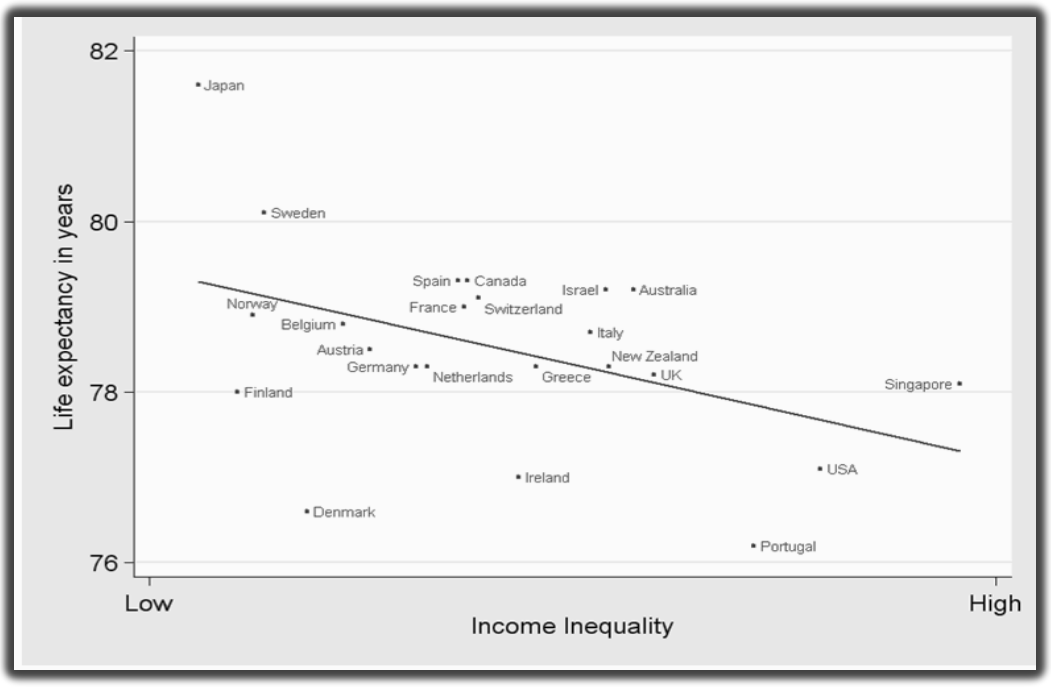

Figure 8. Life Expectancy and Income Inequality[54]

If someone does not have the capital enough to have adequate prenatal care and to deliver a baby in a well-equipped and clean hospital where there are more professional doctors, it is less probable that the baby is going to live after birth. Thus, unequal societies present a high rate of infant mortality as seen on Figure 9.[55]

[54] Wilkinson and Pickett, *The Spirit Level*, 82.

[55] Ibid.

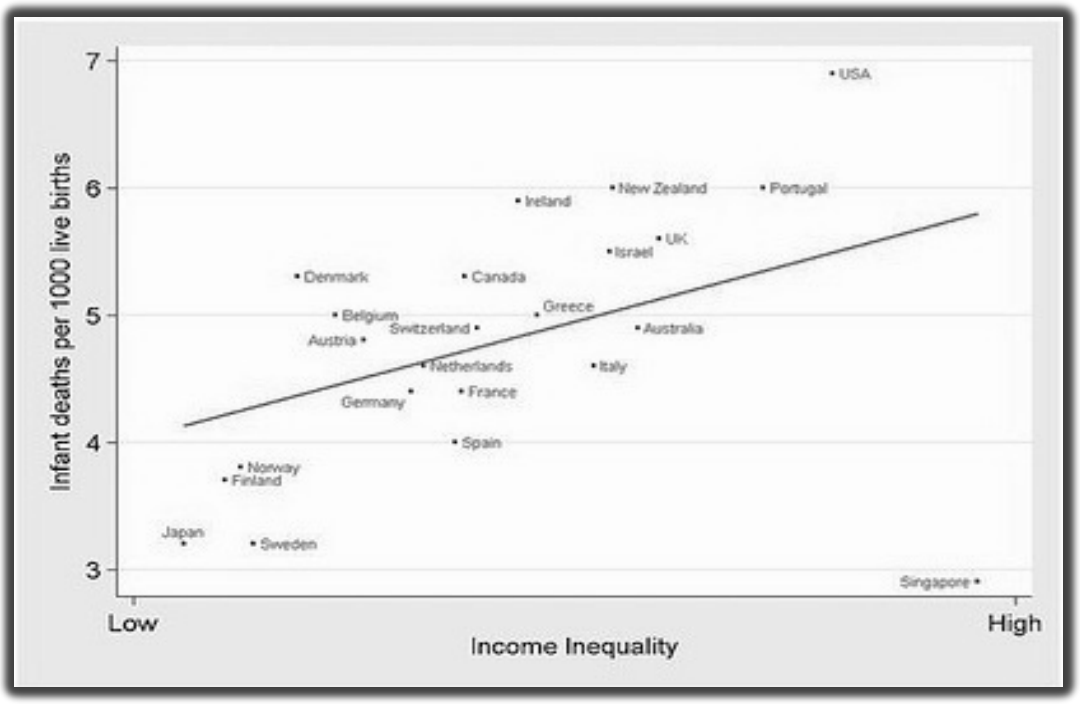

Figure 9. Infant Deaths and Income inequality[56]

4. Obesity and Income Gap

In the past, people believed obesity was peculiar to wealthy people, because they could afford rich foods in great quantities and could enjoy lives of relative indolence. Today, this trend has been reversed. In a society where the income gap is wider between people, it is more likely to see obesity among poorer people, who often subsist on cheaper, high-calorie, low-quality or non-nutritive foods. In these societies, this obesity contributes to shorter life expectancy and many chronic diseases that lead to early death. In addition to its physical toll, obesity is a factor that decreases the confidence that people have in themselves and that also makes life more difficult to live. Wilkinson and Pickett use the data from the International Obesity Task Force, which shows the percentage of obese people in countries, and compare this data with these countries' income inequality ratios. Their study shows that there are more obese people in countries where income is distributed unequally (see Figure 10).[57]

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[56] Wilkinson and Pickett, *The Spirit Level*, 82.

[57] Ibid., 91.

Furthermore, in a more unequal society, people who earn less compared to others may suffer from depression, and due to their perceived stress, they may begin to overeat which in the end causes obesity.

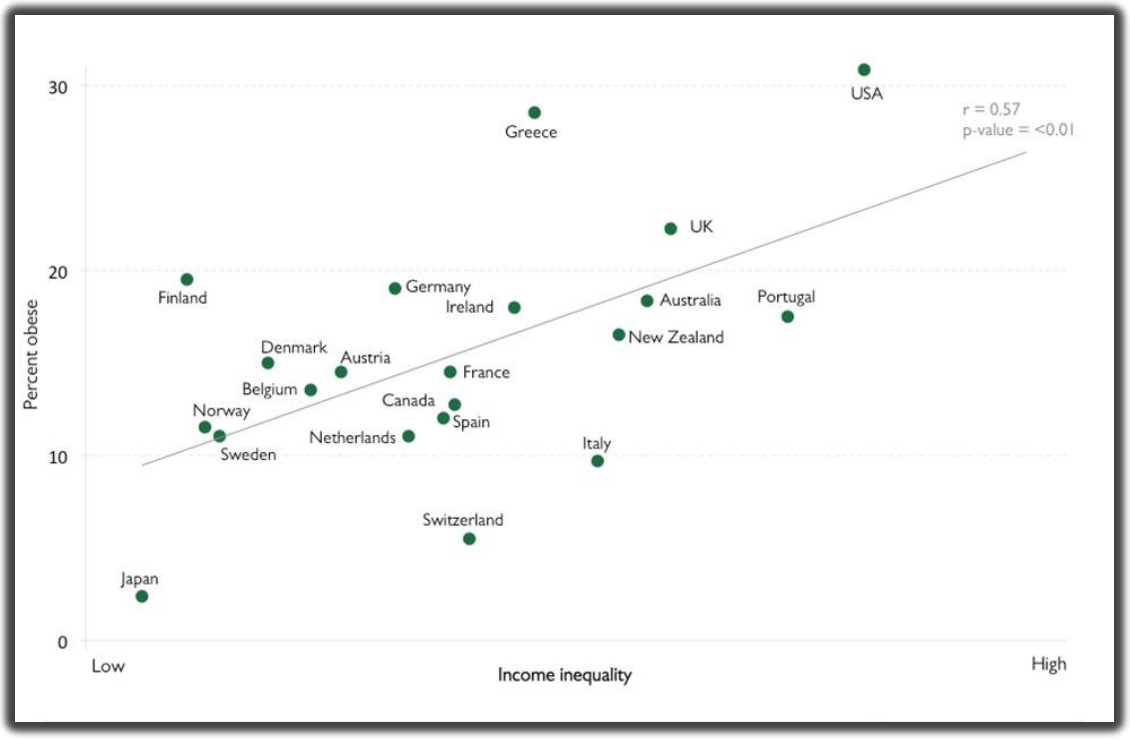

Figure 10. Obesity and Income Inequality[58]

5. Education

Today, in nearly every society, the quality and level of education an individual receives is related to the income level. If a family has a good income and is able to pay for the education expenses of their children, then it becomes easier for the children to overcome hardships in learning. Most wealthy people or those who earn at or over the average wage send their children to private schools, take private lessons for them and provide every opportunity for them to have good jobs in the future.

Using the data from the Programme for International Student Assessment , which administered tests to 15-year-olds in randomly selected schools worldwide, Wilkinson

[58] Ibid., 92.

and Pickett show that there is a relation between the 15-year-olds' math and literacy scores and the level of income inequality. In more equal countries, the average math and literacy scores are higher compared to those in the less equal countries (see Figure 11).[59]

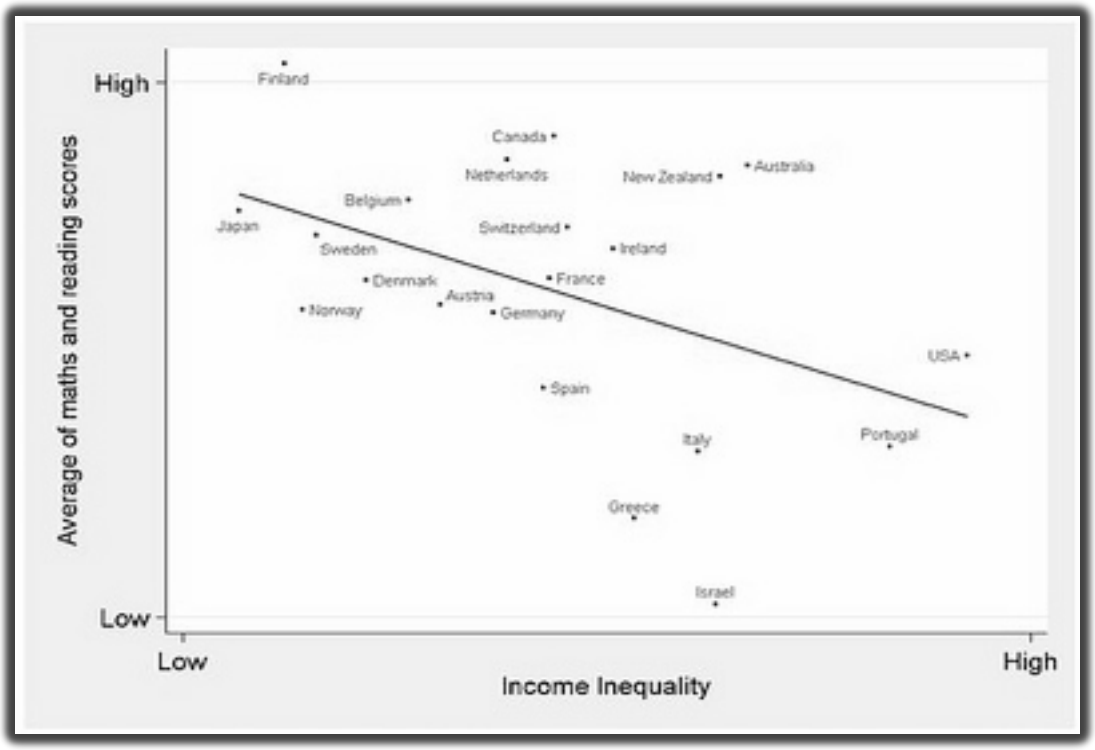

Figure 11. Math and Reading Abilities vs. Income Inequality[60]

6. Status and Violence

For centuries, men have fought each other to achieve higher status in life. If we look at our own time, status is mostly associated with the amount of money people have. As a matter of pride and status, men look for the opportunities to acquire what is necessary: money. Out of frustration or in the pursuit of quick money, violence (such as robberies and murders) increases among people. According to the same logic, in unequal

[59] Wilkinson and Pickett, *The Spirit Level*, 105.

[60] Ibid., 106.

societies, due to the difficulty in reaching a desired status, people mostly resort to violence to get what they need or to escape humiliation.[61]

Wilkinson and Pickett have used data from the United Nations *Surveys on Crime Trends and the Operations of Criminal Justice Systems* and compared it with income inequality. The result is that where a society is more unequal, homicide rates tend to be higher. According to their research, homicide and assault are the most widespread uses of violence in less equal societies (see Figure 12).[62]

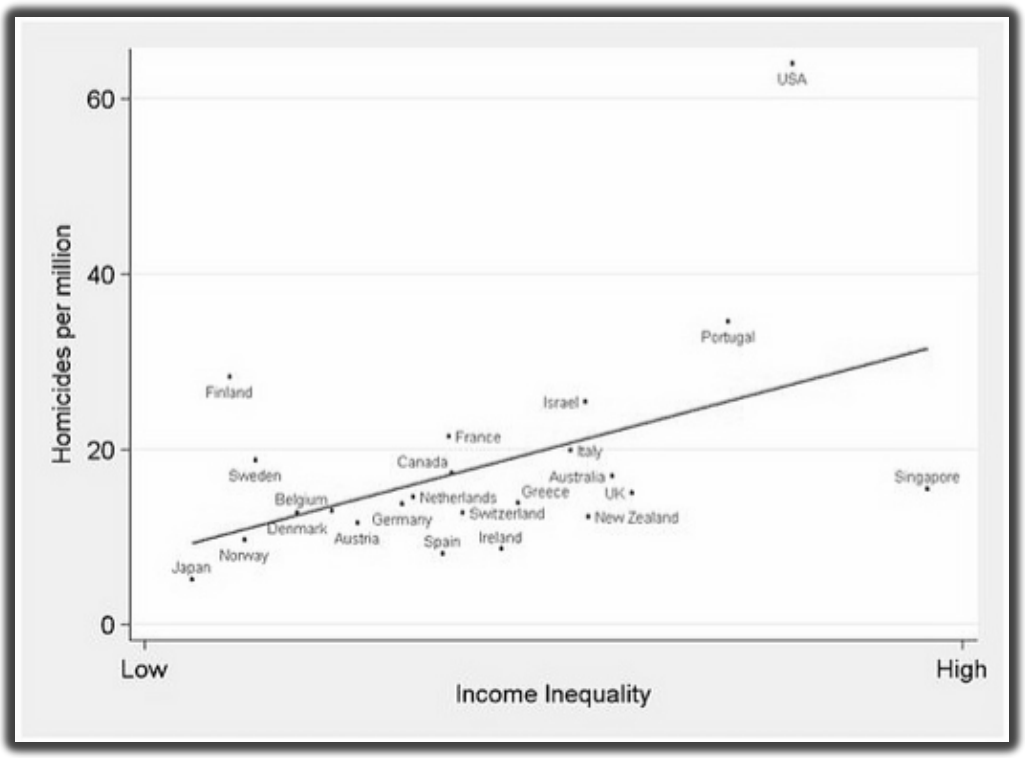

Figure 12. Homicides and Income Inequality[63]

7. Effects on Growth

In their article Alberto Alesina and Dani Rodrik argue that in a country where a high level of inequality exists, a redistributive economic policy develops with higher

[61] Wilkinson and Pickett, *The Spirit Level*, 134.

[62] Ibid., 135.

[63] Ibid.

government spending and distortionary taxation which hinders growth. In their model, they concentrate on the capital taxation because they think it is the simplest way of formalizing a redistributive policy.[64] On the other hand, the hardships facing the poor in spending areas like education limits the realization of human capital investments even if they are going to get good earnings from these investments. If there is more inequality in terms of wealth and income, then the number of the people who suffer these required costs will increase, and this trend will decrease the human capital in return. Since economic growth is related to an increase in human capital, it is possible that the growth will be affected unless preventive measures are taken.[65]

Furthermore, income inequality indirectly affects economic growth by causing an increase in the numbers of crimes, giving way to social discontent and political instability. The uncertainty in the political and economic arena decreases investment. Thus, investment and income inequality are correlated inversely such that in this case, due to the lower levels of investment, growth slows. In their article, Alberto Alesina and Roberto Perotti analyze the relation between political stability, investment, income inequality and growth. They argue that within a country, political stability can be achieved by the existence of a thriving middle class.[66]

Another effect of inequality on growth, according to Roberto Perotti, stems from the increase in the fertility rate that is linked to high inequality. He concludes with three results related to inequality. First, an increase in human capital increases growth at the same time, and when fertility decreases, economic growth increases. Second, as economic equality increases, investment in human capital increases, and fertility

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[64] Alberto Alesina and Dani Rodrik, "Distributive Politics and Economic Growth," *Quarterly Journal of Economics* 109, 1994, 479, http://www.econ.boun.edu.tr/zobuz/teaching/EC352/alesina_rodrik.pdf.

[65] Matthew O. Odedokun and Jeffrey I. Round, "Determinants of Income Inequality and Its Effects on Economic Growth," United Nations University, 2001, 3, http://www.wider.unu.edu/stc/repec/pdfs/dp2001/dp2001–103.pdf.

[66] Alberto Alesina and Roberto Perotti, "Income Distribution, Political Instability, and Investment," *NBER Working Paper Series*, no.4486, 1993, 2, http://www.nber.org/papers/w4486.

decreases. Last, economic growth increases directly with the increase in equality in a society.[67]

In sum, there are causes of inequality such as family structure, technology, immigration, globalization, and early life opportunities, which shape the earnings of the people and the degree of inequality in a country. The effects of inequality on social relations, mental and physical health of individuals, education, violence and growth constitute the other side of the coin that affects society and politics. After explaining the income inequality, we will now examine NAFTA, its origins and structure, as well as its general impact on the economies of its partner countries in the following chapter.

[67] Roberto Perotti, "Growth, Income Distribution, and Democracy: What the Data Say," *Journal of Economic Growth* 1, 1996, 154, http://link.springer.com/content/pdf/10.1007%2FBF00138861.pdf.

III. NORTH AMERICAN FREE TRADE AGREEMENT (NAFTA)

A. HISTORICAL VIEW

For almost six decades until the 1980s, Mexico was strictly protective over its trade policy to free itself from any foreign power. It started with a policy of import substitution in the 1930s, which aimed at protecting the entire industrial sector generally. It severely restricted foreign investment and encouraged domestic industrial growth controlling the exchange rate. Moreover, the oil industry was nationalized during this time. Mexico's protectionist economic policies lasted until a number of factors caused a series of economic challenges in the country.[68]

Mexico suffered from inflation and a declining standard of living in the 1980s. The primary reason for the economic problems that Mexico suffered in the early 1980s until the mid-1980s was the 1982 debt crisis in which the government was unable to meet its foreign debt obligations.[69] As a solution to its challenges, the Mexican government preferred enhancing private industries to state industries and moving toward trade liberalization. From the late 1980s to the early 1990s, the government put a series of measures into effect to reform the economy towards independent trade liberalization.

Mexico's protectionist policy reversed in the mid-1980s when the government was forced to announce that it was unable to pay off its debts and credits. Later on, President Miguel de la Madrid worked on opening and liberalizing the Mexican economy and set up some measures to replace import exchange policies with policies that were aimed at attracting foreign investment, setting lower trade barriers and being a competitive country in non-oil exports. In 1986, Mexico complied with the General Agreement on Tariffs and Trade and declared further trade liberalization measures, which meant having closer ties with the United States. In November 1987, the United States and Mexico made an agreement, the *Framework of Principles and Procedures for*

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[68] M. Angeles Villarreal, "NAFTA and the Mexican Economy," June 2010, 2, accessed March 2, 2013, http://www.fas.org/sgp/crs/row/RL34733.pdf.

[69] M. Angeles Villarreal, "U.S.-Mexico Economic Relations: Trends, Issues, and Implications," 12, accessed March 2, 2013, http://www.fas.org/sgp/crs/row/RL32934.pdf.

Consultation Regarding Trade and Investment Relations, to understand each other's trade and investment. Until this agreement, there was no legal agenda to manage bilateral commercial relations between Mexico and the United States.[70]

Following the first agreement in October 1989 the two countries issued *The Understanding Regarding Trade and Investment Facilitation Talks*, which was a continuation of the 1987 agreement. With the second agreement, a negotiating process for expanding trade and investment opportunities was initiated between the two countries. With these two agreements, bonds between Mexico and the United States got dramatically stronger in terms of trade relations. On making progress in trade relations, Mexico proposed to negotiate a free trade agreement with the United States. It was in June 1990, when the presidents of both countries, President Carlos Salinas de Gortari of Mexico and President George H.W. Bush declared their support of negotiation of a free trade agreement.[71]

On February 5, 1991, NAFTA negotiations began. On December 17, 1992, leaders from Canada, the United States, and Mexico signed NAFTA. After ratification by the congressional bodies of all three countries, the agreement of the bloc came into force on January 1, 1994. The central aim of the agreement is to eliminate the vast majority of tariffs on products exchanged among the three countries. The chapters of the agreement required these tariffs to be applied progressively. The final pieces of the agreement were not fully put into practice until January 1, 2008. The agreement removed export tariffs in many areas including agriculture, automobiles and textiles.[72] This agreement was the extension of the bilateral trade agreement between the United States and Canada that was agreed upon in 1988 and launched in January 1989. It was the agreement of the largest trading bloc in the world, having a population of 370 million people and an economic

[70] Angeles Villarreal, "NAFTA and the Mexican Economy," 2.

[71] Ibid.

[72] Lee Hudson Teslik, "NAFTA's Economic Impact," accessed March 10, 2013, http://www.cfr.org/economics/naftas-economic-impact/p15790.

production of $6 trillion by 1992.[73] In 2002, ten years later, the agreement reached a population of 430 million people and an economy of $12.5 trillion.[74]

The NAFTA agreement includes two add-ons: the North American Agreement on Environmental Cooperation (NAAEC) and the North American Agreement on Labor Cooperation (NAALC) which were mostly advising sides of the agreement. According to Paul L. E. Grieco and Yee Wong, NAFTA established "a supranational commission with limited means of enforcement to ensure that countries abide by their own laws." Mexico, with its powerful and authoritarian government, made the decision of entering NAFTA without opposition from the press, unions or congress.[75]

B. STRUCTURE OF NAFTA

1. Introduction

According to the writer Peter H. Smith, NAFTA has three outstanding features. One of them is an absolute commitment to regional economic cooperation. NAFTA's function was not limited to its name, namely free trade. The agreement also includes sections about competition, investment, financial services, and telecommunications and portrays a deeper form of cooperation. Second, NAFTA has not established a bloc with supranational authority in the region as the EU does in Europe; rather it relies on included sections and negotiations between national governments. Third, NAFTA also has a political basis like any other integration examples. The United States had many goals in ratifying this agreement: achieving stability along its southern border, securing access to Mexico's petroleum, acquiring a useful bargaining chip in its trade negotiations with Japan, Europe and the General Agreement on Tariffs and Trade (GATT) and achieving diplomatic backing from Mexico on foreign policy.[76]

On the other side, Mexico's goals were institutionalizing the economic reforms of the President Salinas, maintaining the country's social peace and getting approval of its

[73] Smith, "Strategic Options for Latin America," 41.

[74] Hufbauer and Schott, *NAFTA Revisited: Achievements and Challenges,* 1.

[75] Peter Hakim, "Two Ways To Go Global," *Foreign Affairs* 81, no. 1 (January-February 2002), 157.

[76] Smith, "Strategic Options for Latin America," 41.

non-democratic, authoritarian regime. Linkage with the United States and Canada, the developed industrial democracies, made Mexico a bridge between the developed world and the developing world. The country assumed the role of an agent and interlocutor for the nations of the south.[77] For the United States, NAFTA provided an opening to exploit a growing export market to Mexico and a chance to mend the tense relations between the two countries. Another aim was to bring a more democratic environment to Mexico where there was a one-party government.[78] For Mexico, NAFTA characterized more opportunities for its expanding and young population.

NAFTA has linked Mexico more closely to the United States in economic terms. The United States' economy saved Mexico from its 1995 crisis and fueled five years of firm development by buying Mexican goods, sending tourists and capital south and giving the flow of workers' payments.[79] On the other side, Mexico's economic relations with the United States were already in progress before NAFTA. Mexico's economy was mostly dependent on U.S. investment and trade, and during those times emigration to the north was a political safety valve. Since the Institutional Revolutionary Party (PRI) began ruling Mexico in 1929, the government has had control over every sector including rural associations, labor unions, the media, governors and the executive and legislative branches. Thus, nearly every Mexican newspaper, television station and business, labor and public groups supported NAFTA.[80]

All three countries of North America benefited from NAFTA. Between 1994 and 2003, during the first ten years after the agreement was put into practice, these countries have developed their economies considerably. Canada had a 3.6% average real GDP at that time, Mexico's was 2.7% despite the crisis happened in 1995 and the United States' was 3.3%. Although all three countries exceeded the OECD average, it was not sufficient for Mexico.[81]

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[77] Smith, "Strategic Options for Latin America," 42.

[78] Hufbauer and Schott, *NAFTA Revisited,* 2.

[79] Hakim, "Two Ways To Go Global," 151.

[80] Ibid., 156.

[81] Hufbauer and Schott, *NAFTA Revisited,* 2.

2. Content of NAFTA

The North American Free Trade Agreement, issued by Canada, the United States, and Mexico, is a broad agreement that includes both international trade and investment rules. It has eight sections, 22 chapters, and some 2,000 pages, which makes it a complex and lengthy document.[82]

The goals of NAFTA are expressed in Article 102: developing investment and regional trade, increasing job opportunities, living standards and working conditions in the member countries, setting rules for the trilateral trade and finding solutions for the disputes, reinforcing environmental laws and protecting worker's rights and negotiating together to further enhance cooperation and benefits of the agreement.[83]

NAFTA covers equal, rules-based mechanisms to ensure the fairness and predictability that are crucial for the North American businesses' commercial exchanges. With NAFTA, businesses can trade and invest relying on the rules, which guarantee equal treatment, and on the policy, which will fairly settle the problems if ever any exist.

Today, NAFTA and the World Trade Organization's (WTO) well-settled and clear rules enable the vast majority of trade and investment among the NAFTA partners. Though some rare disagreements emerge, NAFTA committees, working groups and other consultations settle the differences through NAFTA policies.

In Chapter 19 of the agreement, exporters and domestic producers are offered an operative and direct route to make their case and to claim the results of their investigations before an independent and fair bi-national panel. This process is an option to review such decisions fairly before domestic courts. This system has been impressive for the investigating authorities of all three NAFTA partners in providing efficient and fair review of trade remedy determinations. To date, panels have maintained some decisions made by domestic investigating authorities, but have also deterred others for

[82] NAFTANow.org, "North American Free Trade Agreement," accessed March 5, 2013, http://www.naftanow.org/agreement/default_en.asp.

[83] SICE, "NAFTA Part One: General Part," accessed March 18, 2013, http://www.sice.oas.org/trade/nafta/chap-01.asp.

review. The administration of the Chapter 19 dispute settlement process is managed by the NAFTA Secretariat.[84]

To clarify disagreements, Chapter 20 offers a three-step process regarding the utilization or interpretation of NAFTA foundations. The first step, namely the consultation process, is where the opposing parties formally discuss the disputes. If the disagreement is not clarified at the first step, a Free Trade Commission meeting is set to reach an agreement. If the problem is not solved at the second step, the claimant can ask that a panel be set up to discuss the problem and come to a decision. The NAFTA Secretariat is the responsible wing in performing the Chapter 20 problem-solving process.[85]

Chapter 11 builds a mechanism to settle investment problems between investors and NAFTA partners. This process both ensures NAFTA investors with equal non-discriminatory treatment (according to the principle of international cooperation) and ends the process with an unbiased tribunal.[86]

3. Rules of Origin

Originally, NAFTA rules were used to decide if a type of goods is eligible for preferential treatment under NAFTA. Many times since NAFTA was founded, the allies have applied measures to liberalize or expand the list of products qualified for preferential treatment. For instance, two sets of changes have been implemented since 2005 to make it easier for traders so that they will qualify for duty-free treatment under NAFTA.[87]

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[84] Overview of the Dispute Settlement Provisions, accessed March 18, 2013, http://www.nafta-sec-alena.org/en/view.aspx?conID=615.

[85] WorldTradeLaw.net, "NAFTA Chapter Twenty: Institutional Arrangements and Dispute Settlement Procedures," accessed March 18, 2013, http://www.worldtradelaw.net/nafta/chap-20.pdf.

[86] Adnan Kagalwalla, "NAFTA Chapter 11 Tribunals and Their Impact on Signatory States: A Parallel Judicial System and Its Many Potential Dangers," accessed March 5, 2013, http://moritzlaw.osu.edu/eblj/issues/volume3/number1/kagalwalla.pdf.

[87] NAFTANow.org, "North American Free Trade Agreement," accessed March 5, 2013, http://www.naftanow.org/agreement/default_en.asp.

C. NAFTA INSTITUTIONS

1. The Free Trade Commission

The Free Trade Commission is the political wing of NAFTA that deals with bureaucratic issues. Its members are from NAFTA's ministerial representatives. The commission is made up of trade ministers of the three countries and its meetings are held at least once a year. It handles the practice and further elaboration of the agreement and deals with disagreements arising from its interpretation. It also deals with the committees of NAFTA, its working groups and other secondary bodies.[88] It has no power of its own; it observes the execution of the agreement and can settle problems with the assistance of negotiations. NAFTA gives the political body limited power, and thus the commission has no real authority to change the agreement. Changes or additions to the agreement require a process that has to be done outside of the organization's framework; this means that only endogenous alterations can be done within the terms of the agreement. Changes to the agreement need to be processed through the commission in two ways: in the final accession of other states and in the ratification of limited and technical amendments like customs regulations. In sum, amendments and changes are to be made outside of the NAFTA context.

2. NAFTA Coordinators

Each country designates senior trade department officials who are NAFTA Coordinators. They are responsible for following the management of NAFTA operations day by day.[89]

3. NAFTA Working Groups and Committees

NAFTA has more than 30 working groups. Trade and investment is accomplished through committees, and these committees work to ensure the effective implementation and organization of NAFTA. Work areas especially consist of trade in goods, trade in

[88] NAFTANow.org, "North American Free Trade Agreement," http://www.naftanow.org/agreement/default_en.asp.

[89] Ibid.

agriculture, rules of origin, taxes, and sponsorships, principles, governmental earning, stock and facilities, cross-border movement of business people and alternative disagreement settlement.

4. NAFTA Secretariat

Each member country makes a "national election" to form the NAFTA Secretariat which is in charge of managing the dispute settlement provisions of the agreement and dispute resolution processes under Chapter 14, Chapter 19 and Chapter 20. Its other responsibility, under Chapter 11, includes resolving disagreements about investment. Its registry works in a court-like way concerning panel, committee and tribunal proceedings and maintains a tri-national website containing updated information on past and current disagreements.[90]

5. Commission for Labor Cooperation

To advance a cooperative mechanism on labor matters among NAFTA members as well as to advance laws for domestic labor, a commission for labor cooperation was created. It consists of a Council of Ministers (including the labor ministers from each country) and a Secretariat, which supports the Council administratively, technically and operationally and makes an annual work program. Each NAFTA country has departments responsible for labor that serve as domestic implementation points.[91]

6. Commission for Environmental Cooperation

The reason behind the establishment of the Commission for Environmental Cooperation is to further cooperation among NAFTA members in applying the environmental side and to address environmental issues of the continent, particularly concerning environmental challenges and opportunities of free trade across the continent. The commission consists of a Council with the environment ministers of each country, a Joint Public Advisory Committee with 15 independent volunteer members who provide

[90] NAFTANow.org, "North American Free Trade Agreement," accessed March 5, 2013, http://www.naftanow.org/agreement/default_en.asp.

[91] NAALC.org, "The North American Agreement on Labor Cooperation," accessed March 5, 2013, http://www.naalc.org/naalc.htm.

advice and public input to Council on any matter about environment and a Secretariat which provides an administrative, technical and operational support.[92]

D. TODAY'S NAFTA

1. NAFTA Economy

According to 2008 values, North America has a U.S.$17.0 trillion economic output under NAFTA. It has a $2282 billion export value to the world and $1102 billion among its own participants. The value of its imports to the world is $3090 billion, $1034 billion of which is from the NAFTA countries.[93]

2. NAFTA Population

The NAFTA region hosts 444.1 million people. Canada with 33.3 million, the U.S with 304.1 million, and Mexico with 106.7 million constitutes the NAFTA population.[94]

3. NAFTA Languages

Though various languages are spoken across the NAFTA countries, English, Spanish and French are the languages most widely spoken on the continent.

4. NAFTA Countries

a. Canada

Almost 20 % of jobs in Canada are in the international trade market, and Canada's openness to international trade and investment is the reason behind its expansion. So, it is doubtless that NAFTA is an important competitive advantage for Canada. With the help of this continental platform, Canada helps Canadian business to be known around the world commercially.[95]

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[92] Commission for Environmental Cooperation, accessed March 2, 2013, http://www.cec.org/Page.asp?PageID=1226&SiteNodeID=310&BL_ExpandID=154.

[93] NAFTANow.org, accessed March 2, 2013, "North American Free Trade Agreement."

[94] Ibid.

[95] NAFTANow.org, accessed March 2, 2013, "North American Free Trade Agreement."

b. The United States

The United States which holds the world leaders of the manufacturing and high-tech sectors, especially in computers, medical equipment and aerospace, of services (including financial services and telecommunications) and of agriculture, is the largest economic power in the world with its market economy.[96]

c. Mexico

Mexico's vibrant economy has been transformed and modernized by liberalization of its trade via successfully increasing trade and investment flows. Within a few years' time, Mexico has become one of the largest exporters in the world, changing its exports from primarily oil to manufactured products. According to WTO's statistics, 82% of Mexico's 2011 exports ($286 billion) were to the NAFTA countries. The same source states that $190 billion out of $361 billion valued imports comes from the NAFTA countries.[97]

Following the financial crisis in 1995, GDP growth first dropped by 6.2%, but managed to rise by 5% to 6% annually over the next three years. In 2000, real GDP growth was 6.2% while in 2001 it was -0.2%. With the improved economic conditions in the United States after 2001, the Mexican economy experienced economic growth, as well. Real GDP growth rose between 2002 and 2004 from 0.8% to 4.0%. While GDP increased by 4.9% in 2006, it went down to 3.3% in 2007. Its growth rate was only 1.5% in 2008. Finally, in 2009, the Mexican economy suffered badly from the global financial crisis, and the GDP growth rate tightened by 6.6%.[98]

5. Comparison

The NAFTA countries have more than tripled their economic income in trade, reaching U.S.$949.1 billion per year with NAFTA. In 2008, NAFTA partner countries

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[96] NAFTANow.org, "North American Free Trade Agreement."

[97] Ibid.

[98] Angeles Villarreal, "NAFTA and the Mexican Economy," 4.

made U.S.$469.8 billion direct investment to Canada and the United States. Between 1993 and 2008 NAFTA partners made Mexico one of the largest recipients of foreign direct investment among emerging markets with more than U.S.$156 billion. With NAFTA, all of the three partner countries have benefited from strong growth in the job market. There have been almost 40 million jobs created since 1993 across the continent.[99]

The NAALC was negotiated, and a parallel agreement on labor cooperation was planned by NAFTA partners. It has been the social part of NAFTA. With the NAALC, the regional trading partners look for the ways to have better working conditions and living standards, and to save, develop and carry out basic workers' rights. Through the years, the NAALC has worked effectively to implement this plan and improve working conditions and living standards of NAFTA partners. Moreover, it has also advanced major labor rights, including protection from pregnancy-based discrimination, secret ballot voting and protection of contract and migrant workers. With the NAALC, local employment laws in all three NAFTA countries have been enhanced, and collaboration on labor matters is based on three key areas: trade relations, work-related health and safety and employment criteria.

Moreover, NAFTA has boosted wages to a higher level. Mexico is an outstanding example, with its export firms employing 20% of workers, and they are paid 40% more than those in non-export jobs. The labor force in foreign direct investment firms is nearly 20% more than those working in local businesses, and these workers are paid 26% more than the local manufacturing wage. NAFTA, which was launched to foster trade and investment among Canada, the United States and Mexico, is a trilateral agreement. So it takes the unique cultural and legal framework of each NAFTA country into consideration and enables them to maintain their sovereignty and independence.[100]

The NAAEC is a parallel agreement on environmental partnership among NAFTA partners. It requires the NAFTA partners to cooperate to understand and protect

[99] NAFTANow.org, "Myths vs. Reality," accessed March 15, 2013, http://www.naftanow.org/myths/default_en.asp.

[100] NAFTANow.org, "Myths vs. Reality," http://www.naftanow.org/myths/default_en.asp.

their environment. The agreement also commits each NAFTA partner to implement its environmental laws.[101]

The Commission for Environmental Cooperation, a branch of the NAAEC, has enabled North America to improve its environmental issues. The commission makes provisions with a budget of U.S.$9 million per year; some of its enterprises are: growth of North American management practices for toxic chemicals; invention of the first Mexican air productions; founding of the North American Bird Conservation Initiative, which supplies the three countries with a resource for bird conservation programs; improvement of the practices among the environment, the economy and trade.

Furthermore, the United States and Mexico have established two bi-national institutions. The Border Environment Cooperation Commission is the technical support branch that works for the development of environmental projects along the U.S.-Mexico border. The North American Development Bank is the financial branch that finances these projects. So far, almost U.S.$1 billion has been collected from 135 environmental projects, which makes a total of almost U.S.$2.89 billion, and the countries have assigned U.S.$33.5 million in support and U.S.$21.6 million in contributions for more than 450 other border environmental projects. Mexico has also invested to the protection of the environment, which has resulted in an 81% increase in the sector between 2003 and 2008.

The North American market has also benefited from an increase in agriculture and agri-food trade with NAFTA. Since 1993, there has been an overall growth of U.S.$50 billion in agricultural and agri-food trade and investment among the NAFTA partners. The partners form each other's largest agricultural export markets. For example, while the agricultural markets of Canada and Mexico are mostly supported by the United States, they also supply to the United States in agricultural means as the two leading markets. In 2008 alone the U.S. and Mexico collected U.S.$26.9 billion from their agricultural trade.[102]

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[101] Ibid.

[102] NAFTANow.org, "Myths vs. Reality," http://www.naftanow.org/myths/default_en.asp.

While NAFTA has funded the trading partners for the incorporation of their agricultural sectors, Mexico has needed more and more industrial input for agriculture. For instance, Mexican meat production and consumption has grown with the U.S foodstuffs; Mexican produce is being appreciated equally in the U.S. market day by day. The U.S exports especially grains, oilseeds, meat and related products to Mexico, while it imports beer, vegetables and fruit from Mexico. Both its exports and imports equally form three-fourths of its agricultural trade.[103]

NAFTA has played an effective role for North American manufacturers in accessing materials, technologies, capital and talent available in the North American countries. Thousands of manufacturers that have benefited have become more efficient and more advanced technologically, which has made them more competitive around the world as well as at home. In fact, U.S. manufacturing output increased 62% between 1993 and 2008, as compared with the 42% rise between 1980 and 1993. In 2008, the U.S. reached its highest level of U.S.$1.0 trillion on its manufacturing exports. Canada, on the other hand, achieved a 62% manufacturing output between 1993 and 2008 compared with 23% between 1981 and 1993. Through that period (1993–2008), Canadian manufacturing exports grew much faster (103.6%).[104]

NAFTA has enriched Mexico's industry as well by enabling modernization. Mexico is a strategic manufacturing center in North America, which allows it to have a competitive status in the global marketplace. Since NAFTA came into effect, Mexico has been known internationally for its tripled manufacturing output as well as for its five times' increase in manufactured exports over the past 15 years.

E. NAFTA WITH POLLS

Views of NAFTA have followed a volatile path since the beginning of 1990s. During the years 1991—the time the negotiations started—and 1992 the U.S. public favored the agreement. Afterwards, until the approval of the agreement by Congress in November 1993, the polls showed a division among the public. After Congress ratified

[103] NAFTANow.org, "Myths vs. Reality," http://www.naftanow.org/myths/default_en.asp.

[104] Ibid.

the agreement in 1993, public support increased until the emergence of the peso crisis. From 1994 onwards, both the numbers of opponents and supporters grew. Furthermore, the margin of difference between the numbers stayed steady through 1997. In 1997, the U.S. Congress came across a dilemma regarding whether to extend NAFTA to the Free Trade Area of the Americas or not. According to a Gallup/CNN poll made in August 1997, 44% of the public supported the extension and 52% opposed it.[105]

In a poll made by NBC/WSJ in October 1999, 32% of the public stated that NAFTA did not benefit the United States, whereas 35% favored it. What is tragic was that an August 1999 poll showed 51% of the people mentioned that they had not heard enough about NAFTA to decide whether it was good or bad. If we look at Mexico, when Salinas first put the idea forward, the ratio of supporters to opponents was 5:1, but in the following four years, the number of opponents increased. During the peso crisis the number of opponents outnumbered the supporters until 1996. In 1996, the support for NAFTA again accelerated. In a poll made in 1999, the Mexicans were asked about the effect of NAFTA on their country. Of those responding, 47% believed it was bad for the country, and 43% answered positively. From another perspective, 16% of the Mexicans thought NAFTA had been bad for the United States, and 73% agreed that it had benefited.[106]

NAFTA Questions from Various Pollsters

NOTE: Question wording varied by pollster.

Dec. 11–14, 1993	NBC/WSJ	53 RD	33 WD	14 DK
Dec. 20–26, 1993	Harris	51 F	41 Op	8 DK
Jan. 15–17, 1994	Gallup	53 S	38 Op	9 DK
Jul. 23–26, 1994	NBC/WSJ	28 PI	35 NI	21 DK
Mar. 22–26, 1995	Princeton	43 F	38 Op	19 DK
Mar. 22–26, 1995	PSRA/Times Mirror	43 F	38 Op	19 DK

[105] Robert Pastor, *Toward a North American Community: Lessons from the Old World for the New*, (Washington, DC: Institute for International Economics, 2001), 158.

[106] Pastor, *Toward a North American Community*, 161.

Apr. 16–20, 1995	Harris	48 F	39 Op	13 DK
Apr. 16–20, 1995	Harris	23 B	30 H	12 DK
Feb. 23–25. 1996	Gallup	52 MG	38 MB	11 DK
Mar. 1–5, 1996	NBC/WSJ	21 PI	48 NI	24 DK
Aug. 22–25, 1997	Gallup/CNN/USA Today	37 G	47 B	16 DK
Jul. 7-Sep. 23, 1997	PSRA/Pew	47 GT	30 BT	23 DK
Jun. 30-Aug. 30, 1999	WP/Kaiser/Harvard	24 G	20 B	51 DK
May 18–21, 2000	Gallup/CNN/USA/Today	47 GT	39 BT	14 DK
Sep. 2001	PSRA/Pew	49 GT	29 BT	22 DK
Nov. 18-Dec. 1, 2003	PSRA/Pew	34 GT	33 BT	33 DK
Jan. 9–11, 2004	Gallup/CNN/USA Today	38 GT	46 BT	16 DK
Mar. 17–21, 2004	PSRA/Pew	44 GT	37 BT	19 DK
July 8–18, 2004	PSRA/Pew	47 GT	34 BT	19 DK
Dec. 2004	PSRA/Pew	47 GT	34 BT	19 DK
Oct. 2005	PSRA/Pew	44 GT	34 BT	22 DK
Dec. 2006	PSRA/Pew	44 GT	35 BT	21 DK
Nov. 2007	PSRA/Pew	40 GT	40 BT	20 DK
Apr. 2008	PSRA/Pew	35 GT	48 BT	17 DK

NOTE: + Asked of registered voters. F/OP = Favor/Oppose, RD/WD = Right Direction/Wrong Direction, S/Op = Support/Oppose, PI/NI = Positive Impact/Negative Impact, MG/MB = Mostly Good/Mostly Bad, B/H = Benefit/Harm, B/NB = Benefits/Doesn't Benefit, P/N = Positive/Negative, G/B = Good/Bad, GT/BT= Good Thing/Bad Thing, DK=Don't Know, HHE= Haven't Heard Enough.[107]

Furthermore, when the people of all three countries were asked to choose a one-nation state or a union and give up their cultural character, all of them opposed the idea; however, when it was suggested that forming a single country would bring a higher quality of life, a majority of the populations of all three countries favored the idea.[108]

[107] Polls on NAFTA and Free Trade, accessed March 5, 2013, http://www.aei.org/files/2008/06/26/20031203_nafta2.pdf.

[108] Pastor, *Toward a North American Community*, 162.

This finding suggests that people want to achieve better living standards in life and this in part can be provided with the help of a decrease in income inequality.

In conclusion, between 1993 and 2008 NAFTA partners made Mexico one of the largest recipients of foreign direct investment among emerging markets with more than U.S.$156 billion. With NAFTA, all of the three partner countries have benefited from strong growth in the job market and mutual trade. The majority of the people favored NAFTA because of these reasons and considered NAFTA as a "good thing" in the polls. In the following chapter, we will explain the place of Mexico within NAFTA by explaining Mexico's motivations for participating and some of the problem areas in terms of its economy that remain even after NAFTA.

IV. NAFTA AND MEXICO

A. INTRODUCTION

Most critics mention the benefits of NAFTA, such as the fact that it has brought economic growth to Mexico since its implementation, and some critics state that this growth is below expectations. Mexican exports to the United States have increased enormously since NAFTA was put into practice, from $60 billion to $280 billion per year. As Mexico's economy has developed, American exports to Mexico have increased as well, with a ratio of three times what it had been before. The deal has provided a dramatic decrease in prices for Mexican consumers. Among its critics, though, is Princeton Sociology Professor Alejandro Portes, who claims there is stagnation in the Mexican labor market. He states that economic development in Mexico is rather weak, averaging lower than 3.5% per year. He adds, "Unemployment is higher than what it was when the treaty was signed; and half of the labor force must eke out a living in invented jobs in the informal economy, a Figure 10% higher than in the pre-NAFTA years."[109]

Mexico is highly reliant on exports, and most of Mexico's exports go to the United States. From 1988 to 2008, Mexico's export rates reached 31%, up from 10%, and more than 80% of these exports were to the United States. NAFTA, however, is not the reason for all the changes in economic growth, trade or investment patterns in Mexico since 1994. There are other factors that have significantly affected the Mexican economy, such as Mexico's former local market-opening actions, economic crises, falling exchange rates, fluctuating oil prices and business cycles. NAFTA possibly sped up ongoing trade-related job issues which were not totally due to the trade agreement.[110]

Though NAFTA had both positive and negative growth effects, much of the trade growth began especially in the late 1980s in accordance with the trade liberalization measures. While mostly positive in economic reforms, NAFTA could not lower income gaps within Mexico, or between Mexico and the United States or Canada. The World

[109] Lee Hudson Teslik, "NAFTA's Economic Impact," accessed March 10, 2013, http://www.cfr.org/economics/naftas-economic-impact/p15790.

[110] Angeles Villarreal, "NAFTA and the Mexican Economy," 3.

Bank's study in 2005 on the economic effects of NAFTA on Mexico concluded that NAFTA helped Mexico to catch up to the economic standards of the United States and Canada. Also as the study indicates, NAFTA took part in helping Mexican manufacturers to adopt U.S. technological innovations and positively affected the number and quality of jobs.[111]

B. MEXICO'S MOTIVATIONS

Mexico's main motivation in following a free trade agreement with the United States was to develop the Mexican economy and promote economic improvement by attracting foreign direct investment, creating jobs and expanding exports. The economy of Mexico had an increase in poverty throughout most of the 1980s, and this increase caused difficulties in the country. The supporters of the agreement hoped that NAFTA would raise shareholder confidence in Mexico, boost wage rates and export diversification, generate higher-skilled jobs and decrease poverty. It was anticipated that, over time, NAFTA would diminish the income differences among Mexico and Canada and the United States. When the agreement was put into practice, many people predicted that it would cause an overall positive impact on the Mexican economy.[112]

Even so, NAFTA was not the only factor around that influenced the Mexican economy; Mexico's solitary trade liberalization acts of the 1980s and the peso crisis of 1995 affected economic growth, real wages and per capita GDP. Although NAFTA has brought economic and social developments to the country, these benefits have not been evenly distributed throughout the country.[113]

C. IS NAFTA INCOMPLETE?

How states argue over governance issues and how they shape their relations according to the deals or agreements they make after negotiations are important topics. Law enforcement is a related issue. According to Louis Belanger, "delegation is mainly

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[111] Lederman, et al., "Lessons from NAFTA for Latin America and the Caribbean Countries."

[112] Angeles Villarreal, "NAFTA and the Mexican Economy," 1.

[113] Ibid., 3.

designed by states in order to limit opportunistic interpretations of their respective obligations and rights under the agreements they have signed."[114]

In NAFTA, for example, delegation for the judicial law to be established is given to the ad hoc meetings and courts consisting of impartial professionals. Looking from a broader perspective, most of the agreements seem to be incomplete or missing parts. When an agreement sets rules such as what should happen in the participating countries, it cannot regulate what should happen in non-participating countries. Likewise, a treaty can state what some members should do, but cannot rule for the others. In many cases, the states deliberately try to make the agreements imperfect so they achieve elasticity by leaving some gaps. Furthermore, they believe they would reach completeness at the bargaining table. According to Belanger, delegation in agreements overall have two practices. Thus, member states in NAFTA have an option to choose between different combinations of incompleteness and delegation. From the U.S. perspective, because the country does not want to decrease its level of power, it opts for relative completeness rather than a political delegation. As seen in the case of NAFTA, due to the huge difference in power and economic reliance on other countries, these states formed an agreement that has a complete structure and is rich in judicial delegation but weak in political delegation.[115] There are two ways of delegation in NAFTA. The first one is the Free Trade Commission, in which the political delegation exists, and the four problem solving mechanisms described in Chapter III that include some judicial but also indirect organizational delegation.

According to Belanger, "NAFTA not only has been designed in a way to avoid delegating any authority for endogenous modification; it has also been designed in a way to keep to a miniature level the delegation of low-level secondary ruling authority." Political delegation shows itself in two ways: one of them has a goal to change the text of

[114] Louis Belanger, "NAFTA: An Unsustainable Institutional Design," in *Governing the Americas: Assessing Multilateral Institutions*, ed. Gordon Mace, Jean- Philippe Therien, and Paul Haslam (Boulder, CO: Lynne Rienner, 2007), 197.

[115] Ibid., 198.

the agreement, whereas the other one, which is more directorial, is trying to adjust a domain of cooperation that was left vague in the beginning.[116]

There are two cases related to NAFTA's rules of origin. First, the rules in NAFTA are much more restrictive than the ones included in other free trade agreements approved by the United States.[117] This explains why members of these other agreements have more access to the U.S. market than do Mexico and Canada. Second, there was a decline in the use of rules of origin system by Canadian firms exporting in the United States. This decline reflects the fact that economic relations have been disappointed by the charges of compliance, especially when there are low tariffs for the non-NAFTA countries. In sum, these costs give way to the damaging of the agreement's effectiveness.[118]

D. THE PESO CRISIS OF 1994–1995

In late 1994–95, less than a year after NAFTA was put into practice, a peso crisis occurred in Mexico, which radically outlined the insights of the pact. To supporters of the agreement, the crisis stemmed from the wrong acts applied on macroeconomic policy. On the other side, the opponents believed the time of the emergence of the crisis and the ratification was not a coincidence.[119]

The crisis happened almost concurrently with President Ernesto Zedillo's return to Mexico from the December 1994 Summit of the Americas that was held in Miami. The peso first was devalued by 15% by the government, and then was allowed to float. Its value shifted quickly from 3.4 to 7.2 per dollar, before being stabilized to 5.8 in April 1995..[120] Prices rocketed upwards by 24% in the first half of 1995. As inflation increased, domestic demand decreased dramatically. The Clinton administration created a rescue package for Mexico worth almost $20 billion with a quick response and an extra

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[116] Belanger, "NAFTA: An Unsustainable Institutional Design," 206.

[117] Robert (Bob) Kunimoto and Gary Sawchuk, "NAFTA Rules of Origin," PRI Project, 11, accessed March 6, 2013, http://dspace.cigilibrary.org/jspui/bitstream/123456789/398/1/NAFTA%20Rules%20of%20Origin.pdf?1.

[118] Belanger, "NAFTA: An Unsustainable Institutional Design," 208.

[119] Hufbauer and Schott, *NAFTA Revisited,* 8.

[120] Ibid., 10.

$30 billion from other areas. The aid came across opposition from both the key donors in the IMF and the Congress. The Mexican government, in response to this aid, applied a strict policy on monetary and fiscal issues. The Mexican economy recovered by 1996. The loans taken from the United States were all repaid including interest in January 1997. According to Gary Clyde Hufbauer and Jeffrey J. Schott, NAFTA promoted the improvement of the Mexican economy in three ways. First, the rescue package given to Mexico provided the enough money for Mexico to recover from its liquidity crisis. These loans provided U.S. $600 million extra turnover. Second, due to NAFTA obligations, Mexico was forced to obey a program based on a strict monetary policy and currency devaluation. Third, because NAFTA brought an open market to the north, this helped Mexico avoid a worse economic situation and experience a recovery in exports during 1995 to 1996. If there had not been an agreement between these two countries, the United States would surely have helped Mexico by financial means, but NAFTA made the amount of aid higher and sped up the recovery.[121]

Some opponents argue that more should have been done to avoid this kind of a crisis. They make two points in addressing the peso result to NAFTA: insufficient surveillance and overconfidence. According to Hufbauer and Schott even the EU did not agree on a mutual surveillance of economic policies until 1992 when the Maastricht Treaty was signed, and today the banks and other financial institutions are monitored by national authorities of the countries.[122] There were consultation agreements before the peso crisis took place, but they were not adequate to prevent economic misconduct in the Mexican government. Another point to consider is that Mexico would have opposed such an intervention or restriction that the United States might have taken at that time. Conversely, Wall Street gave higher scores to Mexican securities, and afterwards, investors believed that NAFTA would quickly benefit in financial terms. The authors believe, therefore, that it is unfair to sue NAFTA for the crisis and policy of the PRI.[123]

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[121] Hufbauer and Schott, *NAFTA Revisited*, 11.

[122] Gary Clyde Hufbauer and Jeffrey J. Schott. *NAFTA: An Assessment* (rev. ed.) (Washington, DC: Institute for International Economics, 1993).

[123] Hufbauer and Schott, *NAFTA Revisited,* 12.

E. PROBLEMATIC AREAS

1. Income Gap

According to a recent study, a number of reasons, including poorly applied economic reforms and a lack of important reforms needed in other areas, caused the U.S.-Mexico income gap.[124] First of all, in the late 1980s and early 1990s Mexico had not fully accomplished applying the economic reforms, which resulted in an economic decline rather than the intended increase. The study indicates that the government did not take the necessary measurements to appropriately implement privatization and trade liberalization efforts, which worsened the effects of the 1995 economic crisis and only caused private monopolies to take over public ones. Secondly, Mexico neglected implementation of other important economic reforms. As the study states, since the mid-1990s, the government has skipped much needed reforms such as financial policy or labor law reform, behind which partially the political sensitivity of these issues and the special interest groups preventing these reforms stand as the reason.[125] Third, the authors indicate that Mexico needs an "internal engine" to urge domestic demand to decrease the country's weakness to economic disorders in the United States. Finally, the study concludes that the Mexican politicians' ability to resist or recover from external shocks was negatively affected by the government's macroeconomic policy limitations.[126]

2. Wages

Trade integration is not the only reason behind the changes in wages in Mexico since NAFTA. Wages can mirror a number of economic factors like GDP, production, exchange rates and international trade. For many years, Mexican wages have generally been coordinated with the Mexican economy. Wages experienced an ongoing rise from the early 1980s until the mid-1990s, but they fell by 15.5% with the currency crisis in the

[124] Robert A. Blecker and Gerardo Esquivel, "NAFTA, Trade, and Development," The Mexico Institute of the Woodrow Wilson Center, October 2009, 11–14.

[125] Ibid., 14–16.

[126] Ibid., 17.

mid-1990s. Then, from 1996 to 2000 wages increased by 10.8%, and then they fell by 3.2% in 2008 and by 5.0% in 2009.[127]

The percentage of skilled and non- skilled workers in Mexico may have been affected by the government's trade liberalization measures. In the Mexican manufacturing industry, the real average wage of non-skilled workers was 2.25 times less than that of skilled workers in 1988. This rate reached 2.9 in 1996, but then it was stable until 2000.[128] According to the World Bank study, even though the Mexican economy benefited from NAFTA both economically and socially, the agreement alone was not enough to narrow the wage gap between Mexico and the United States. The study indicates that NAFTA positively affected wages and employment in some Mexican states, but trade liberalization caused the wage differences that remain within the country.[129]

[127] Angeles Villarreal, "NAFTA and the Mexican Economy," 9.

[128] Gerardo Esquivel and José Antonio Rodríguez-López, "Technology, Trade, and Wage Inequality in Mexico before and after NAFTA," *Journal of Development Economics*, 2003.

[129] Lederman, et al., "Lessons from NAFTA for Latin America and the Caribbean Countries."

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V. NAFTA AND INCOME INEQUALITY IN MEXICO: 1998–2006

A. CAUSES OF INCOME INEQUALITY

Nathan M. Jensen focuses on the 2000 International Labor Organization's (ILO) survey of Mexico, which posits that a little more than 6% of workers in the country are categorized as high-skilled or professional workers. Since this small ratio does not include all skilled labor, Jensen argues that having a high proportion of unskilled workers should not cause the wage difference between the skilled and unskilled workers to be a factor affecting the income inequality in Mexico.

In an another article, Blecker and Esquivel argue that there are four basic reasons why Mexico has been dealing with the issues related to income compared to its close neighbor, the United States: 1) executing unhealthy economic reforms; 2) deficiency of other kinds of economic reforms in areas such as law, financial sector, education, infrastructure, etc.; 3) lack of a domestic structure that could complete the external one (characterized by the U.S. industrial sector and consumer market); and 4) restrictive economic policies on the macro level.[130]

1. Unhealthy Economic Reforms

Through the end of 1980s and the beginning of the 1990s, the authorities in Mexico applied various reforms such as financial reform, trade opening, privatization of banks and highways, etc., with the aim of changing the inward-looking economy of the country to a more modern and export-oriented one. In the implementation phase, Mexico experienced devastating outcomes from some of these reforms which were badly executed. For instance, the state privatized the banks without establishing a proper framework first. This in turn caused an unmanageable credit boom that worsened the situation caused by the currency crisis of December 1994 (the so-called Tequila crisis). On the other side, the privatization of the telecom industry brought the extraction of huge rents from the domestic market.[131]

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[130] Blecker and Esquivel, "NAFTA, Trade, and Development," 15.

[131] Ibid.

2. Deficiency of Other Economic Reforms

Due to the bad experiences with the old reform efforts and the shift in the country's political structure in 1997 that stemmed from PRI's failure in preserving its absolute majority at the Congress of the Union, Mexico began to have a reform paralysis. Although most of the people believed that there should be major changes in the economy's structure, no further major reforms have been undertaken since the mid-1990s. The political parties expressed disagreement about the solutions and ideas regarding proposed reforms, and this made these reforms stagnate. On the other side, no matter how easily they could be approved and implemented in the country, some reforms, which include the rule of law, competition policy, and financial regulations, were deliberately hindered due to their effects on special interest groups.[132]

3. Lack of a Domestic Engine

Since 1994, the GDP growth of Mexico has been in correlation with that of the United States. With the implementation of NAFTA, the economic structure of Mexico began to be affected by the fluctuations in the U.S. economy. Except for the steep recession that Mexico experienced in 1995, its economy has been growing at a similar rate compared with that of the U.S. since 1996 (see Figure 13). This strong relation between the two economies can be explained by the deficiency of a domestic engine in Mexico, which causes its economy to be changed immediately in pace with that of the United States. Considering its important place in the world economy as a large market, it is surprising that Mexico does not have a relatively large domestic market. Blecker and Esquivel argue that the reason for this lack of a domestic engine is that Mexico's outward-looking economy possibly went so far that now it sees the domestic market as irrelevant to its development. In sum, this situation exacerbates the country's sensitivity to external conditions, especially the economic situation of the United States.[133]

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[132] Blecker and Esquivel, "NAFTA, Trade, and Development," 16.

[133] Ibid., 17.

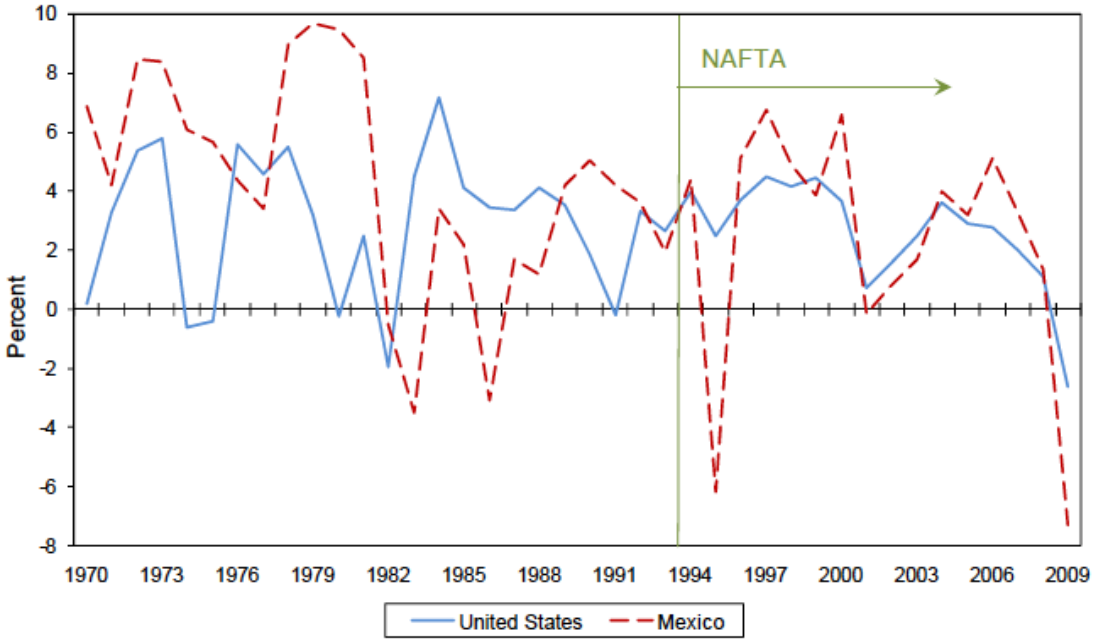

Figure 13. Real GDP Growth Rates, United States and Mexico, 1970–2009[134]

4. Economic Restrictions on Macro Level

Apart from the previous reform efforts, two important reforms in macroeconomic policy in Mexico have been implemented. One is that the Central Bank, with its independent structure, has an objective of price stability, and on the other side, economic policy is executed according to the zero deficit rules regardless of the situation of the business cycle. These two policies limit the ability of Mexico to counteract and respond to external shocks. Moreover, the economic policies, which are induced in these circumstances further increases exchange rates and output instability.[135]

B. FACTORS THAT DECREASED INCOME INEQUALITY IN MEXICO

1. Introduction

Since the implementation of NAFTA, Mexico has seen a decline in income inequality. Gerardo Esquivel argues that the declining pattern of income inequality in Mexico is due to the increased earnings of workers. He further mentions that this decline

[134] Blecker and Esquivel, "NAFTA, Trade, and Development," 34.

[135] Ibid., 18.

can be attributed to the shift in the structure of workers and a late result of trade liberalization. Focusing on another aspect, Raymond Robertson posits that traditional trade channels have caused the decrease in wage inequality. Another author, López-Acevedo, compares the education composition structure with the earnings inequality using the data from 1996 to 2002. In his article, Raymundo M. Campos-Vázquez brings empirical evidence on the job polarization factor using the Mata and Machado methodology to decompose wage inequality. This method relies on quantile regressions for each possible quantile. Campos-Vázquez hypothesizes that especially supply and demand forces have shaped the changes in income structure in Mexico for the post-NAFTA period.[136]

2. FDI Inflows

After the implementation of NAFTA with the efforts of Salina administration, Mexico came across a huge inflow of FDI. Nathan M. Jensen and Guillermo Rosas lay out the effects of FDI flows to Mexico on income inequality during 1990s. They focus on the subject of how FDI is related to wages. According to their regional analysis, they posit that the variation of FDI inflows explains its effects on income inequality that differs from region to region. During those years, most of the FDI flows into the country were focused on either Mexico City or in the cities bordering the United States, as shown on Figure 14.[137] Since FDI increased in bordering regions due to the bilateral relations that were accelerated with the implementation of NAFTA, it is possible that a reduction in inequality happened because of the increase in the wages of unskilled and semi-skilled workers in the bordering states.

[136] Campos-Vázquez, "Why Did Wage Inequality Decrease in Mexico after NAFTA?" 8.

[137] Jensen and Rosas, "Foreign Direct Investment and Income Inequality in Mexico," 474.

Note: FDI distribution is higher in darker colors

Figure 14. Regional FDI inflows in Mexico, 2000[138]

Another figure from Jensen's article shows the income inequality patterns of the Mexican states between 1990 and 2000. Here, it is easy to see the effect of FDI flows in the country brought by NAFTA (see Figure 15). In the figure, the white regions are the states where inequality has decreased considerably. The dark regions show the places where income inequality has increased dramatically. The other regions have not seen radical changes in terms of Gini indices from 1990 to 2000.[139]

[138] Jensen and Rosas, "Foreign Direct Investment and Income Inequality in Mexico," 476.

[139] Ibid., 478.

Figure 15. Gini Indices by Region in Mexico, 1990–2000[140]

In the post-NAFTA period, according to Jean-Baptiste Velut, Mexico benefited not only from its NAFTA partners, but also from other countries that were eager to enter the North American market. By the system of rules of origins, Mexico attracted foreign firms outside North America mostly from Japan and China, which wanted to export their commodities to the U.S. market through Mexico. The author gives the total FDI flows from the United Nations Trade Conference on Trade and Development (UNCTAD) to show the increase in FDI flows to Mexico after NAFTA. During this time period, NAFTA considerably increased the investment flows and trade in the country and benefited the Mexican economy (see Table 1).[141]

[140] Jensen and Rosas, "Foreign Direct Investment and Income Inequality in Mexico," 478.

[141] Jean-Baptiste Velut, "NAFTA's Developmental Impact on Mexico: Assessment and Prospects," 2011, 5, http://ideas.revues.org/71.

Year	Inward investment				Outward investment			
	Equity	Reinvested earnings	Other	Total	Equity	Reinvested earnings	Other	Total
1985	1 535	524	- 76	1 984	..	..	..	222
1986	1 870	595	- 65	2 401	..	..	..	322
1987	2 318	412	- 96	2 635	..	..	..	- 33
1988	2 205	692	- 17	2 880	..	..	..	38
1989	1 659	1 075	441	3 176	..	..	..	117
1990	1 115	1 070	449	2 633	..	..	..	223
1991	3 422	1 408	- 69	4 761	..	..	..	177
1992	3 012	1 020	360	4 393	..	..	..	647
1993	3 041	1 399	- 51	4 389	..	..	..	- 110
1994	5 672	2 367	2 934	10 973	..	..	..	1 058
1995	6 838	1 572	1 116	9 526	..	..	..	- 263
1996	5 529	2 590	1 066	9 185	..	..	..	38
1997	9 115	2 150	1 564	12 830	..	..	..	1 108
1998	6 604	2 864	3 289	12 757	..	..	..	1 363
1999	6 409	2 348	5 172	13 929	..	..	..	1 901
2000	8 422	3 899	5 788	18 110	..	..	..	363
2001	22 936	3 870	3 120	29 926	4 152	261	- 9	4 404
2002	15 481	2 484	5 917	23 883	585	326	- 20	891
2003	9 409	2 105	7 141	18 655	317	1 523	- 586	1 253
2004	14 865	2 525	7 436	24 827	1 901	1 876	655	4 432
2005	12 976	4 032	7 400	24 407	3 726	975	1 772	6 474
2006	6 195	7 749	6 175	20 119	5 452	0	307	5 758
2007	17 312	8 080	6 101	31 492	4 239	497	3 520	8 256
2008	11 874	7 518	7 748	27 140	1 253	385	- 481	1 157
2009	7 656	4 253	4 211	16 119	6 093	31	895	7 019
2010	13 783	2 651	4 275	20 709	11 845	795	930	13 570
2011	8 806	6 770	3 978	19 554	2 034	1 889	5 023	8 946

Table 1. FDI Flows of Mexico, by Type of Investment, 1985–2011[142]

3. Globalization in Mexico

According to the authors Fernando Borraz and Jose Ernesto Lopez-Cordova, globalization affected Mexico in a positive way. Unlike those who think that globalization has increased income inequality in Mexico, Borraz and Lopez-Cordova compare the differences in income inequality across Mexican states and relate them to the shifts that happened with the globalization process, and show that income distribution is more equal in the states which are linked to the world economy more closely. Their analysis explains this relationship with the argument that states which are more integrated with the world economy bring satisfactory job opportunities for low-skilled women relative to more educated female workers. In this case, with the increase in women

[142] UNCTAD FDI/TNC Database, Investment Country Profiles: Mexico, based on data from the Secretaría de Economía, Dirección General de Inversión Extranjera, 4, http://unctad.org/en/PublicationsLibrary/webdiaeia2012d13_en.pdf.

entering the labor force, especially women from low-income households, the total household income also increases. The authors use the household data from 1992 to 2002 in their research.[143]

The surveys included around 10,000 households and were collected by Mexico's Instituto Nacional de Estadistica, Geografia e Informatica (INEGI). According to INEGI's report which included nine regions of Mexico from 1992 to 2002, it is clear that the Northern regions have a more equal income distribution compared to the other regions of the country (see Table 2).

Region	1992	1994	1996	1998	2000	2002
Central	0.498	0.470	0.493	0.529	0.583	0.489
North Central	0.524	0.503	0.508	0.535	0.470	0.498
South Central	0.544	0.600	0.549	0.593	0.551	0.497
Gulf	0.540	0.542	0.592	0.578	0.496	0.526
North	0.538	0.527	0.470	0.505	0.436	0.463
Central Pacific	0.490	0.469	0.499	0.522	0.494	0.470
North Pacific	0.502	0.527	0.530	0.531	0.467	0.476
South Pacific	0.602	0.556	0.556	0.524	0.583	0.549
Southeast	0.515	0.539	0.576	0.560	0.605	0.510
Northern Border	0.508	0.514	0.494	0.506	0.429	0.433
PPP	0.502	0.506	0.491	0.497	0.431	0.439
All	0.546	0.557	0.545	0.562	0.531	0.504

Table 2. Gini Index by Region in Mexico, 1992–2002[144]

In 2002, compared to the values in 1992, only two regions did not see a change in their income distribution: Central and Southeast regions. The other seven regions witnessed a decrease in income inequality over the ten-year period.[145] In sum, it is clear

[143] Fernando Borraz and Ernesto Lopez-Cordova, "Has Globalization Deepened Income Inequality in Mexico?" *Global Economy Journal* 7, no.1, 2007, 2.

[144] Ibid., 26.

[145] Ibid., 9.

that the income inequality level decreased due to the globalization process that was accelerated by the implementation of NAFTA. With the emergence of new job opportunities for the low-skilled workers, the gap in income levels between the high-income and low-income families decreased and thus caused the inequality decline in the regions that were impacted the most by globalization and NAFTA.

4. Gini Index, Median Income, and Job Increase

The OECD reports show that there has been a decrease in poverty since NAFTA took effect. According to Jean-Baptiste Velut, when the most common comparative indicator, 50% of median income, is taken as a measure, it can be seen that poverty declined from 21.7% in the mid-1990s to 18.4% in the mid-2000s. The Gini index similarly showed a decrease from 0.52 in the mid-1990s to 0.47 in the mid-2000s. In both cases, the situation before the implementation of NAFTA was worse compared to the post-NAFTA period. Moreover, according to ILO statistics, employment in Mexico increased from 33 to 44 million jobs between 1993 and 2008.[146] This, in turn, caused a decline in inequality bringing new job opportunities for the people in the low-income quantile.

5. Relative wages

In determining the income inequality level in a country, the comparison between the wages of skilled and unskilled workers is a common indicator used in measurement. This indicator is acquired by taking the ratio of salaries of employees to wages of production workers. Robert A. Blecker and Gerardo Esquivel argue that after NAFTA went into effect, this ratio started to decrease from 1997 to 2007 (see Figure 16). In the figure, it is seen that the ratio of salaries of employees to wages of production workers starts to decline after the implementation of NAFTA.

[146] Velut, "NAFTA's Developmental Impact on Mexico," 6.

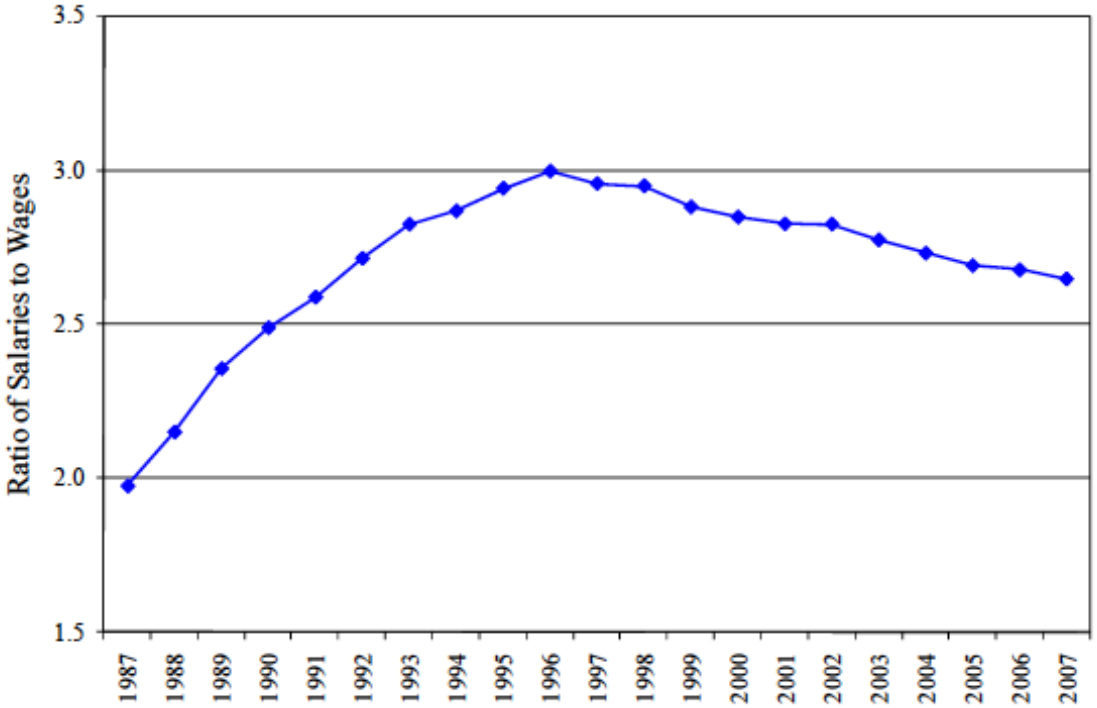

Figure 16. The Ratio of Salaries of Employees to Wages of Production Workers in the Non-Maquiladora Manufacturing Industries of Mexico[147]

6. Education

After 1994, Mexico started to increase its enrollment rates in college and high school. According to Campos-Vázquez, this increase in enrollment to higher levels of education caused a decrease in wage inequality, especially after 1998, through a decline in returns to education.[148] He posits that if returns to schooling had been constant, then wage inequality would have increased by an increase in schooling.[149] The other reason was that there were not enough top qualified jobs to match the increase in high-skilled workers. He states that if the increase in educational levels is not supported by labor market reforms, there will not be enough job opportunities for the new workforce. The rise in the numbers of college workers has generated wage pressures not only in high-skilled jobs but also in less than high-skilled jobs. As an increase happens in the number

[147] Blecker and Esquivel, "NAFTA, Trade, and Development," 33.

[148] Campos-Vázquez, "Why Did Wage Inequality Decrease in Mexico after NAFTA?" 17.

[149] Ibid., 13.

of college graduates in the future, it is likely that this process will put more pressure on wages at the top quantile.[150] This would probably bring a decrease in the wages of high-educated workers. To evade wage pressures, the policy should be to increase job creation.

In another article, Campos-Vázquez, Esquivel and Lustig argue that between 1994 and 2006, the decrease in wage inequality was caused by the shifts in the low quantile of the income distribution. During this time, the average wages for the less skilled and less educated ones increased, and conversely, the average wages for high skilled and high-experienced workers decreased (see Figure 17).[151] The term after 1994 witnessed a scarcity in structural reforms, and the government began integration with the rest of the world by agreements such as NAFTA. During this time the degree of unionization stayed low and minimum wages started to become non-binding.[152] This process in turn decreased the wage gap between high-skilled and low-skilled workers.

[150] Campos-Vázquez, "Why Did Wage Inequality Decrease in Mexico after NAFTA?" 15.

[151] Campos-Vásquez et al., "The Rise and Fall of Income Inequality in Mexico, 1989–2010," 20.

[152] Ibid., 17.

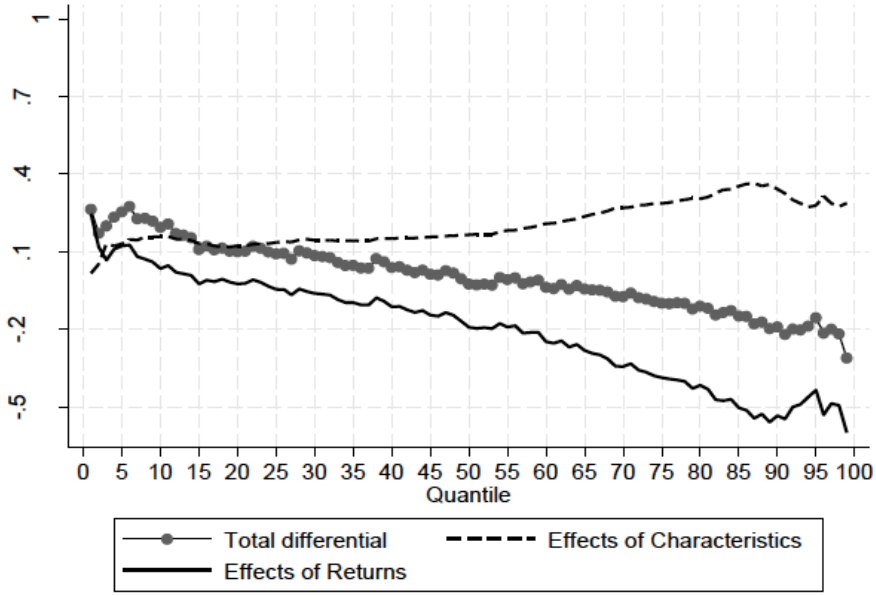

Figure 17. Decomposition of differences in the distribution of earnings, Mexico: 1994–2006.[153]

[153] Campos-Vásquez et al., "The Rise and Fall of Income Inequality in Mexico, 1989–2010," 10.

VI. CONCLUSION

In the world of international relations, the nations that have supreme power mostly decide the mutual interactions. As in the case of NAFTA, the ones who are less powerful—Mexico and Canada—will likely suffer more from the agreement's inefficiency and incompleteness. According to Grieco, as Belanger mentions, "Less powerful states often fear that institutionalized economic integration, even if it proves to be advantageous for everyone, would increase their dependence on a dominant and potentially hegemonic neighbor."[154]

According to several economists, the Mexican economy has benefited from NAFTA directly and indirectly to recover from the 1995 currency crisis. Mexico recovered from the crisis not only by applying a strong economic modification program but also by entirely following its NAFTA obligations to be able to trade with the United States and Canada. The Mexican government has gotten support from NAFTA to continue with the economic reforms in the market, which has increased investors' confidence in Mexico. As the World Bank study indicates, NAFTA has boosted FDI in Mexico approximately 40%.[155]

The comparison between the wages of skilled and unskilled workers shows that the ratio started to decrease between 1997 and 2007. The ratio of salaries of employees to wages of production workers started to decline after the implementation of NAFTA.

The increase in enrollment at higher levels of education caused a decrease in wage inequality especially after 1998 through a decline in returns to education after the implementation of NAFTA, which was first thought to necessitate high-skill jobs in the manufacturing sector. Because NAFTA brought new job opportunities for low-skilled workers rather than for high-skilled ones, there were not enough top qualified jobs to match the increase in high-skilled workers. As a result, the rise in the numbers of college

[154] Belanger, "NAFTA," 209.

[155] Angeles Villarreal, "NAFTA and the Mexican Economy," 7.

workers generated wage pressures not only in high-skilled jobs area but also in the area of less -skilled jobs, which caused income inequality to decline.

According to another view, between 1994 and 2006, the decrease in wage inequality was caused by the shifts in the low quantile of the income distribution. During this time, the average wages for the less skilled employee with lower levels of education increased, and concurrently, the average wages for highly-skilled and highly-experienced workers decreased.[156]

The implementation of NAFTA brought FDI inflows to Mexico beginning in the 1990s. Since FDI increased in bordering regions due to the bilateral relations that were accelerated at that time, it is possible that a reduction in inequality happened because of the increase in the wages of unskilled and semi-skilled workers in the bordering states. During this time period, NAFTA considerably increased the investment flows and trade in the country and benefited the Mexican economy.[157]

Moreover, with the globalization brought by NAFTA, Mexico's economy was affected in a positive way. Comparing the differences in income inequality across Mexican states and relating them to the shifts that happened with the globalization process, it is seen that income distribution is more equal in the states which are linked to the world economy more closely. States which are more integrated with the world economy bring satisfactory job opportunities, in particular, for low-skilled women relative to more educated female workers. In this case, with the increase in women's entrance to the labor force, especially among low-income households, the total household income also increases. In sum, it is clear that the income inequality level decreased due to the globalization process that was accelerated by the implementation of NAFTA. With the emergence of new job opportunities for the low-skilled workers, the income gap between the high-income and low-income families decreased, and this in turn caused the income inequality decline in the regions most affected by globalization and NAFTA.[158]

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[156] Campos-Vasquez et al., "The Rise and Fall of Income Inequality in Mexico, 1989–2010," 20.

[157] Jensen and Rosas, "Foreign Direct Investment and Income Inequality in Mexico," 474.

[158] Borraz and Lopez-Cordova, "Has Globalization Deepened Income Inequality in Mexico?" 2.

When the most common comparative indicator, 50% of median income, is taken as a measure, it can be seen that poverty declined from 21.7% in the mid-1990s to 18.4% in the mid-2000s. The Gini index also registered a decrease from 0.52 in the mid-1990s to 0.47 in the mid-2000s. In both cases, the situation in Mexico before the implementation of NAFTA was worse compared to the post-NAFTA period. Moreover, according to ILO statistics, employment in Mexico increased from 33 to 44 million jobs between 1993 and 2008.[159] This, in turn, caused a decline in economic inequality by bringing new job opportunities for the people in the low-income quantile.

Overall, NAFTA has provided the circumstances for the decrease in income inequality between 1998 and 2006. During these years, the low-skilled and inexperienced workers benefited the most compared to skilled and college graduate workers; however, the timeline that includes a period other than these years when Mexico experienced other factors that diminished the benefits of NAFTA. As predicted, NAFTA could not be the panacea for all the problems in the Mexican economy. Despite its shortcomings, looking at the period between 1998 and 2006, it can be argued that the reasons for the decline in income inequality mostly stemmed from NAFTA. Mexico's experience under this agreement shows that NAFTA alone cannot be adequate for the long-term stability of the economy of the country and that structural reforms are needed to maintain the benefits of comprehensive trade agreements. In Mexico's case, there remains a clear need for measures to increase competitiveness in a number of areas, including the initiatives such as easing labor market rigidities, facilitating investment and exploitation of new opportunities in the energy sector, deregulating the telecommunications industry, as well as pushing forward judicial reforms that provide greater certainty to the legal process and enhance the rule of law. As mentioned throughout the thesis, there is still some progress that has to be done to achieve full equality throughout the country, however, the opportunities that have been brought to the country during the NAFTA period especially between 1998 and 2006 can be taken as an example to overcome economic inequality in other countries; but it should not be overlooked that Mexico has had a special privilege in

[159] Velut, "NAFTA's Developmental Impact on Mexico," 6.

terms of geography and a ready market and that providing that environment for another one will be hard to achieve and will need some time.

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